CFD-520

SERVICE MANUAL

Ver 1.1 2002.03

US Model
Canadian Model
E Model
UK Model
Australian Model

Model Name Using Similar Mechanism	CD Section	NEW
	Tape Section	CFD-10／10L
Optical Device Type		KSM-212BAN
Tape Transport Mechanism Type		MF-204-64

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 3.2-ohm loads, both channels driven from 150-10,000 Hz; rated 2.3 W per channel-minimum RMS power, with no more than 10 % total harmonic distortion in AC operation.

(US model)

Other Specifications

CD player section

System	Compact disc digital audio system
Laser diode properties	Material: GaAlAs Wave length: 780 nm Emission duration: Continuous Laser output: Less than 44.6 µW (This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block.)
Spindle speed	200 r/min (rpm) to 500 r/min (rpm) (CLV)
Error correction	Sony Refined Super Strategy Cross Interleave Reed Solomon Code
Number of channels	2
Frequency response	20–20,000 Hz ± 2 dB
Wow and flutter	Below measurable limit

Radio section

Frequency range	US, Canadian, E, Australian model : FM: 87.6–108 MHz AM: 530–1,710 kHz UK model : FM: 87.6 – 107MHz AM: 531 – 1,602kHz
Antennas	FM: Telescopic antenna AM: Built-in ferrite bar antenna

Cassette-corder section

Recording system	4-track 2-channel stereo
Frequency response	TYPE I (normal) cassette: 80 – 10,000Hz

General

Speaker	Woofer: 10 cm dia., 3.2 ohms cone type Tweeter: 3 cm
Inputs	Mixing microphone input jack (minijack): Sensitivity 1.1 mV For low impedance microphone

– Continued on page 2 –

CD RADIO CASSETTE-CORDER

9-959-597-13
2002C0200-1
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Sony Corporation
Personal Audio Company
Published by Sony Engineering Corporation

SONY®

Outputs	Headphones jack (stereo minijack) For 16–68 ohms impedance headphones Speaker terminals For supplied 3.2 ohms impedance speaker
Power output (EXCEPT US model)	2.3 W + 2.3 W (at 3.2 ohms, 10% harmonic in DC operation)
Power requirements	240 V AC, 50 Hz (UK, Australian model) 120 V AC, 60 Hz (US, Canadian, E model) DC 9 V, 6 size D (R20) batteries
Power consumption	AC 20 W

Battery life

	FM recording	Tape playback	CD playback
Sony SUM-1 (NS)	approx. 15 h	approx. 16 h	approx. 8 h
Sony Alkaline AM1	approx. 40 h	approx. 44 h	approx. 20 h

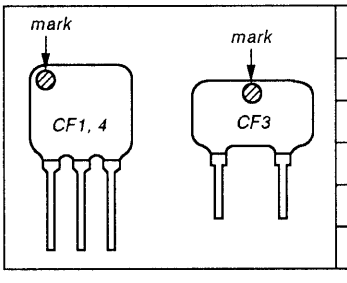
Dimensions	Approx. 637 × 247 × 206 mm (w/h/d) (25⅛ × 9¾ × 8⅛ in.) incl. projecting parts
Mass	5.9 kg (13 lb) (incl. batteries)
Supplied accessory	AC power cord (1)

Design and specifications subject to change without notice.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

• HOW TO CHANGED THE CERAMIC FILTERS

This model is used three ceramic filters of CF1, CF4 and CF3. You must used same type of color marked ceramic filters in order to meet same specifications.
Therefore, the ceramic filter must changed three pieces together since it's supply three pieces in one package as a spare parts.



Mark	Center frequency
red	10.70MHz
blue	10.67MHz
orange	10.73MHz
black	10.64MHz
white	10.76MHz

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1
SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

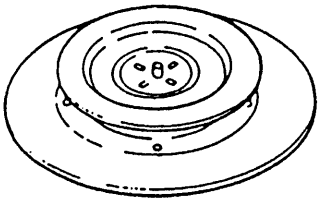
NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe more than 25cm away form the objective lens.

CHUCK PLATE JIG ON REPAIRING

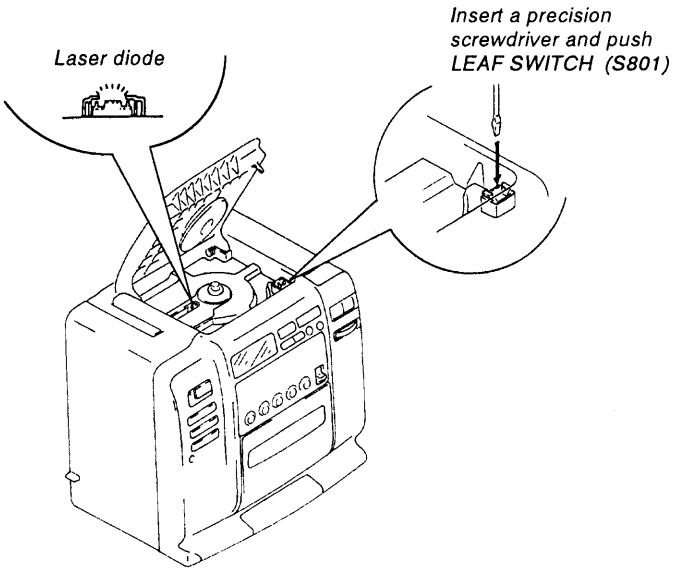
On repairing CD section, playing a disc without the CD lid, use Chuck Plate Jig.

- Code number of Chuck Plate Jig : X-4918-255-1



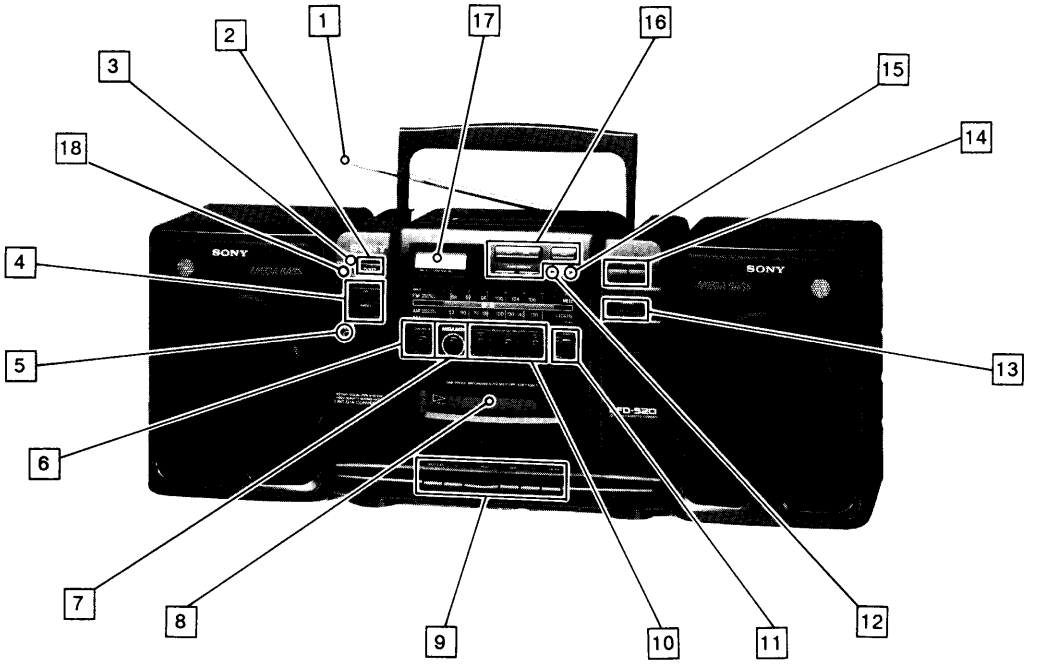
LASER DIODE AND FOCUS SEARCH OPERATION CHECK

1. Press CD open knob.
2. Open the lid for CD.
3. Push on LEAF SWITCH (S801) as following figure.
4. Confirm the laser diode emission while observing the objecting lens. When there is no emission, Auto Power Control circuit or Optical Pick-up is broken.
   Objective lens moves up and down once for the focus search.



SECTION 2
GENERAL

LOCATION AND FUNCTION OF CONTROLS



[FRONT panel]

1 TELESCOPIC ANTENNA

2 POWER switch

3 OPR/BATT indicator

4 FUNCTION switch

5 PHONES (headphones) jack

6 BALANCE knob

7 MEGA BASS knob

8 CASSETTE HOLDER

9 TAPE operation buttons
- ■▲ STOP/EJECT button
- ● REC button
- ▶ PLAY button
- ◀◀ REW button
- ▶▶ FF button
- ❚❚ PAUSE button

10 ROTARY EQUALIZER knob

11 BAND selector

12 DISPLAY/ENTER buttons

13 TUNING knob

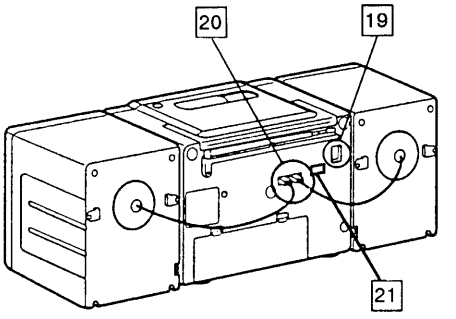
14 VOLUME control

15 PLAY MODE button

16 CD operation buttons
- ▷❚❚ PLAY/PAUSE button
- □ STOP button
- ⏮ (FR) } AMS/SEARCH
- ⏭ (FF) }

17 Information display

18 POWER STANDBY indicator (UK model)



[REAR panel]

19 AC IN

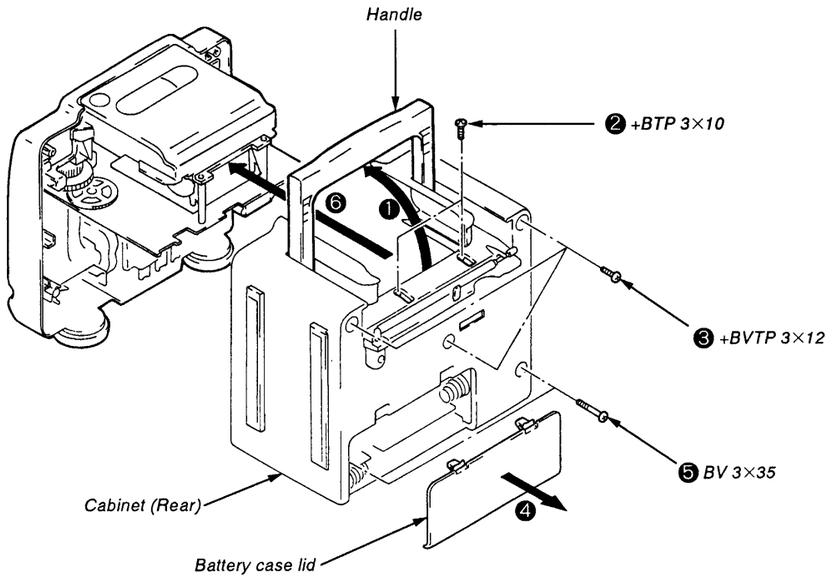
20 SPEAKER (L, R) terminal

21 FM MODE/ISS switch (UK model)

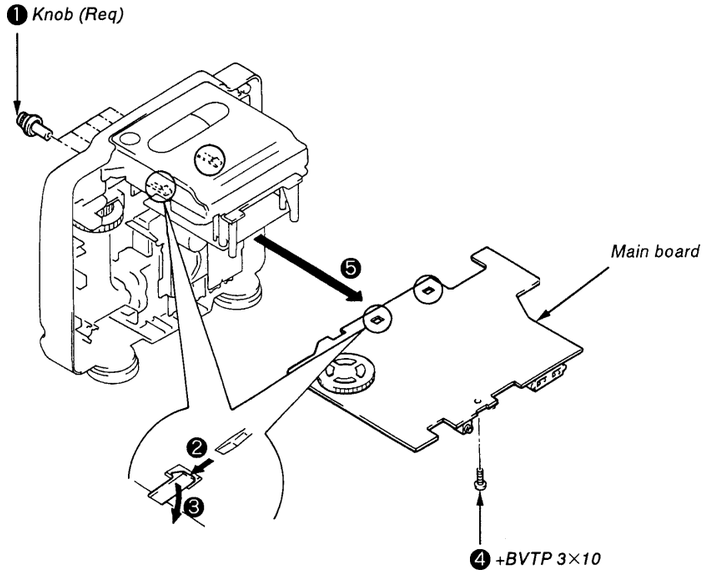
SECTION 3
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

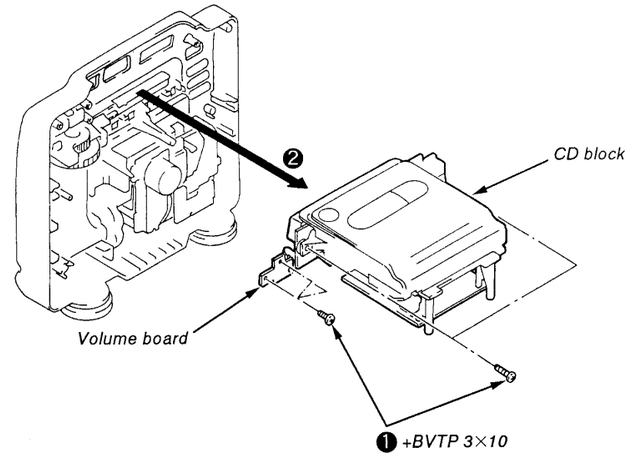
3-1. CABINET (REAR) REMOVAL



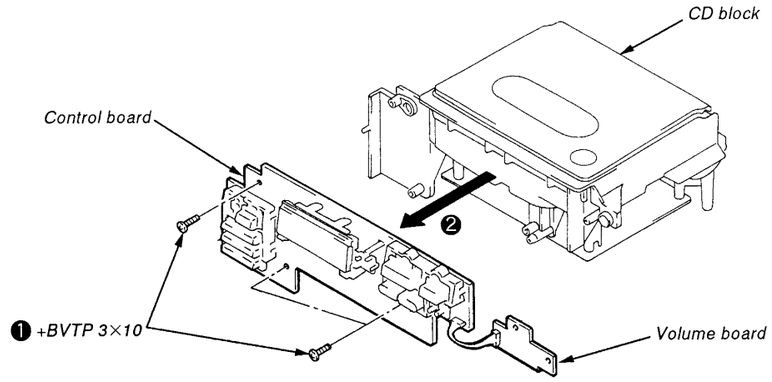
3-2. MAIN BOARD REMOVAL



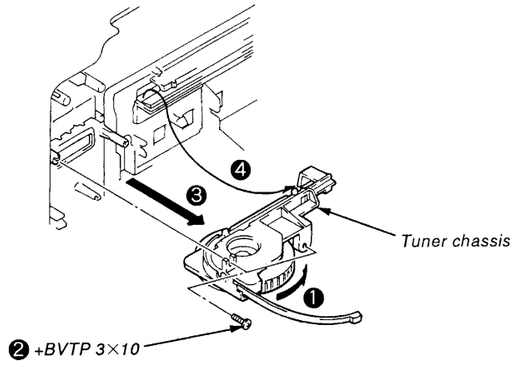
3-3. CD BLOCK, VOLUME BOARD REMOVAL



3-4. CONTROL BOARD REMOVAL



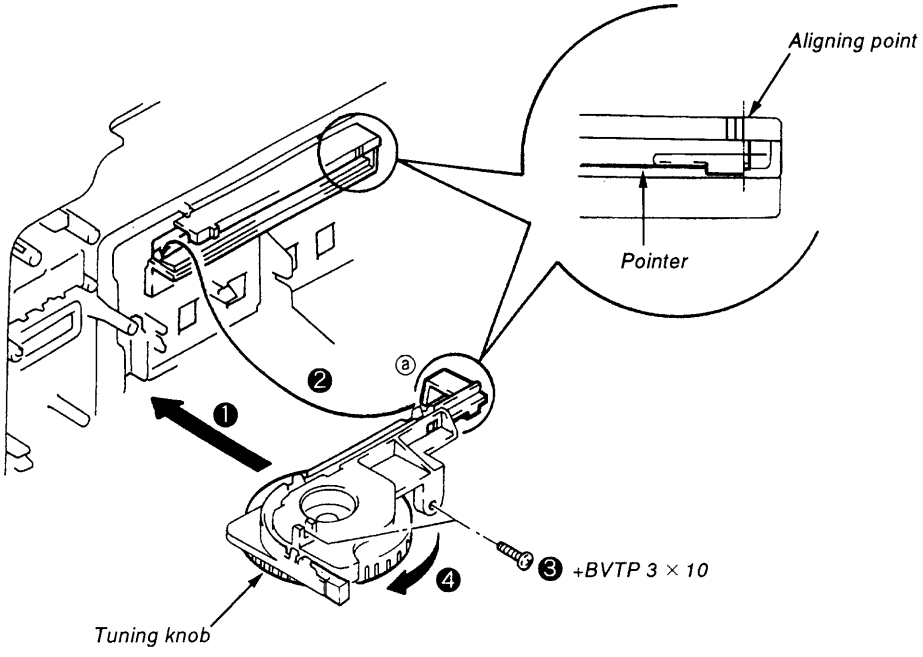
3-5. TUNER CHASSIS REMOVAL



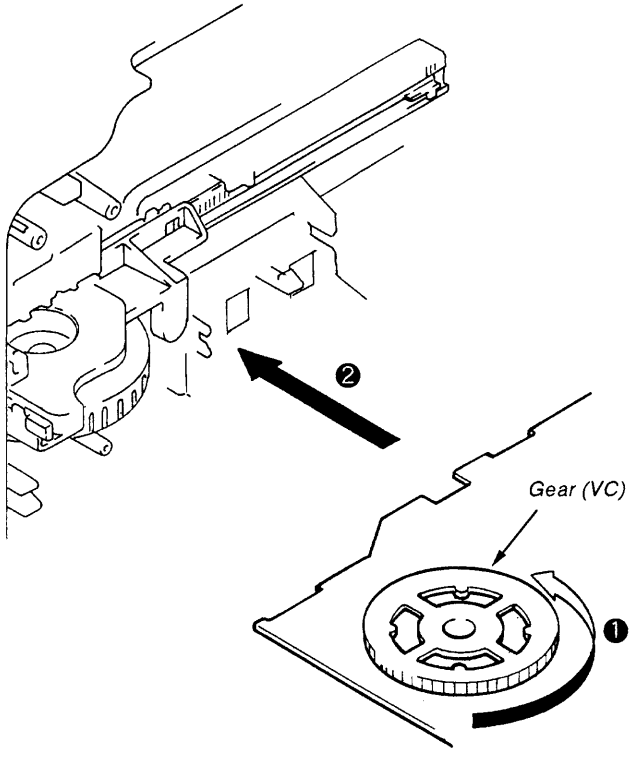
SECTION 4
DIAL POINTER INSTALLATION

Note : Follow the installation procedure in the numerical order given.

- Insert part ⓐ of the pointer in the groove, turn the tuning knob in the direction of the arrow and align the pointer with the alignment point.



- Gear (VC) fully to arrow direction.



SECTION 5
ADJUSTMENTS

5-1. MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab :
   record/playback head　pinch roller
   erase head　rubber belts
   capstan　idlers
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

1. Torque Measurement

Mode	Torque Meter	Meter Reading
Playback	CQ-102C	22.5 – 55g•cm (0.32 – 0.76 oz•inch)
Back tension	CQ-102C	2 – 5g•cm (0.03 – 0.06 oz•inch)
Rewind	CQ-201B	60 – 120g•cm (0.84 – 1.66 oz•inch)
Fast Forward		

2. Tape Tension Measurement

Mode	Tension Meter	Meter Reading
FWD	CQ-403A	more than 150g (5.30 oz)

5-2. ELECTRICAL ADJUSTMENTS

TAPE SECTION

1. The adjustments should be performed in the order given in the service manual. (As a general rule. playback circuit adjustment should be completed before performing recording circuit adjustment.)
2. The adjustments should be performed for both L-CH and R-CH unless otherwise indicated.

- Switch location
  FUNCTION ····· TAPE (RADIO OFF)
  ROTARY EQUALIZER ·· center click
  BALANCE ····· center click
  VOLUME ····· MAX
  MEGA BASS ····· mechanical center

Standard Input Level

	MIC
source impedance	300 Ω
input level	2.75mV (– 49dB)

Standard Output Level

	SP OUT	PHONES
load impedance	3.2 Ω	32 Ω
output level	0.775V(0dB)	0.25V(– 10dB)

Test Tape

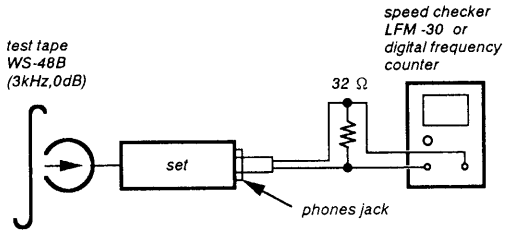
Type	Signal	Used for
WS-48B	3kHz, 0dB	Tape Speed Adjustment

0 dB=0.775V

Tape Speed Adjustment

Procedure :

Mode : playback

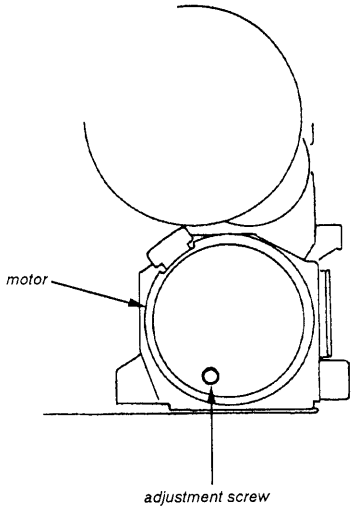


Adjustment Values :

Speed checker	Digital frequency counter
± 3%	2,910 to 3,090Hz

Frequency difference between the beginning and the end of the tape should be within 1% (30Hz).

Adjustment Location :



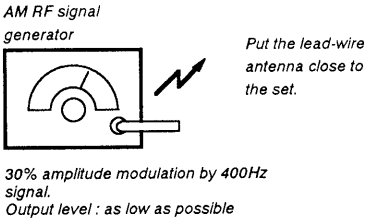
TUNER SECTION

- Switch location

FUNCTION ····· RADIO
VOLUME ····· MAX
BALANCE ····· center click
MEGA BASS ····· mechanical center
ROTARY EQUALIZER ·· center click

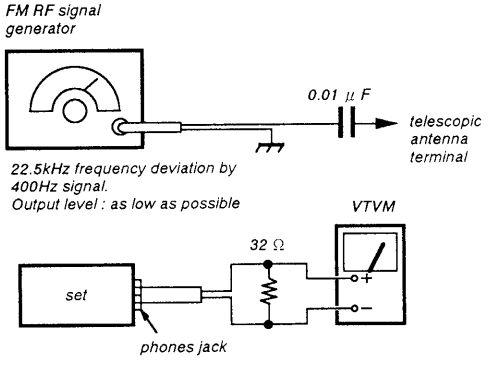
AM Section

BAND : AM



FM Section

BAND : FM



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

no mark : US, Canadian, E, Australian model
( ) : UK model

AM IF ALIGNMENT	
Adjust for a maximum reading on VTVM.	
T1	455kHz (455kHz)

AM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L4	520kHz (520kHz)
CT4	1,780kHz (1,680kHz)

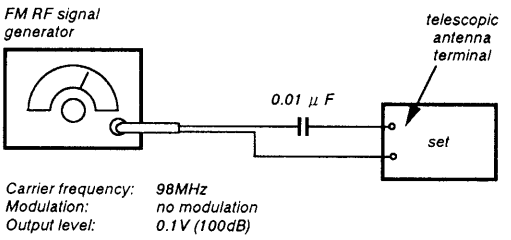
AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L3	600kHz (600kHz)
CT3	1,400kHz (1,400kHz)

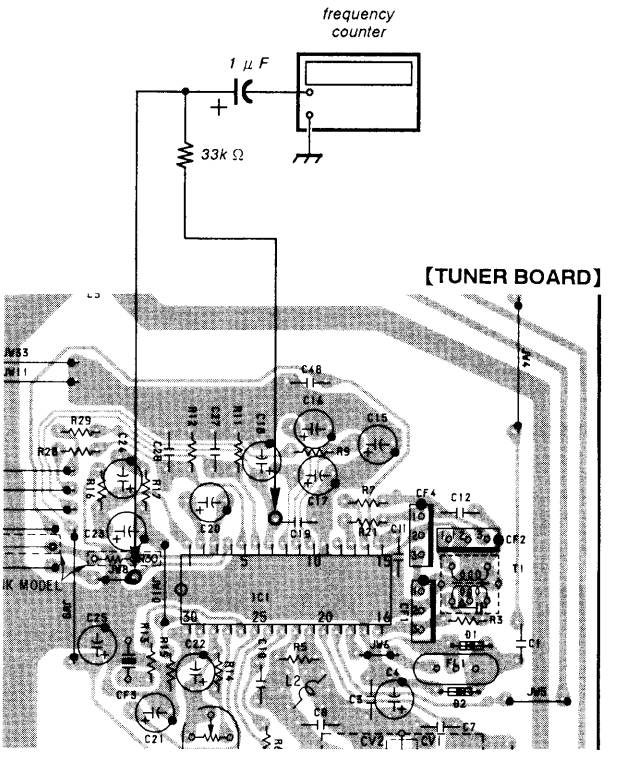
FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L2	86.5MHz (87.0MHz)
CT2	109.5MHz (108.3MHz)

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L1	86.5MHz (87.0MHz)
CT1	109.5MHz (108.3MHz)

VCO Adjustment

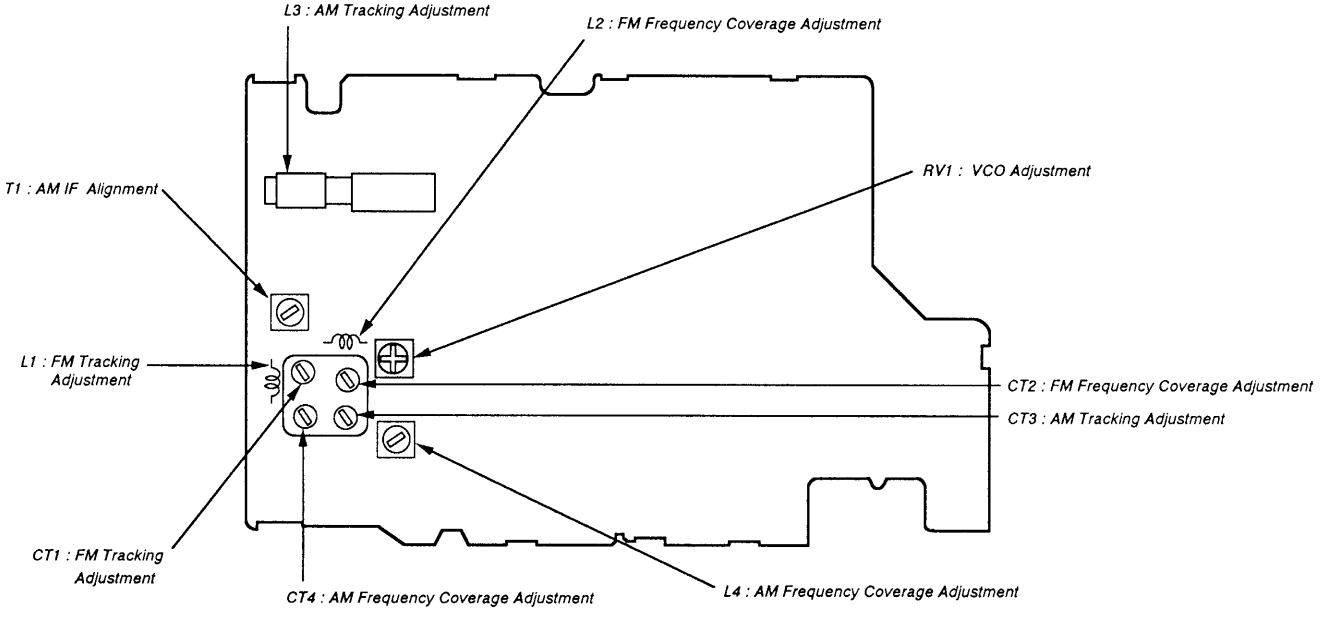
procedure :





1. Connect the frequency counter to ④ and ⑦ pins of IC1 as shown the figure below.
2. Turn the set to 98MHz.
3. Adjust RV1 for 76kHz ± 500Hz reading on frequency counter.

Adjustment Location : Main board (Component side)


L3 : AM Tracking Adjustment
L2 : FM Frequency Coverage Adjustment
T1 : AM IF Alignment
RV1 : VCO Adjustment
L1 : FM Tracking Adjustment
CT2 : FM Frequency Coverage Adjustment
CT3 : AM Tracking Adjustment
CT1 : FM Tracking Adjustment
CT4 : AM Frequency Coverage Adjustment
L4 : AM Frequency Coverage Adjustment

CD SECTION

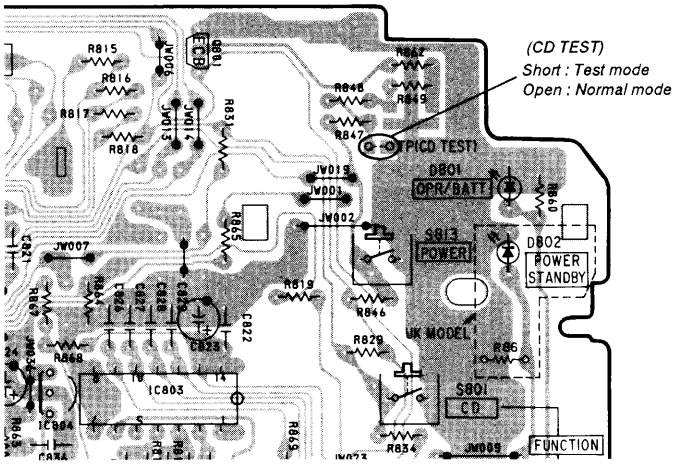
Note on Adjustment

1. Perform adjustment in test mode.
   After adjustment, be sure to release test mode.
2. Perform adjustments in the order given.
3. Use the disc (YEDS-18. Part No. 3-702-101-01) only when so indicated.

How to Put the Set into Test Mode

1. Short-circuit between TP (CD TEST) short on the control board.
2. Turn the POWER on.
3. LCD801 indicator blinks the test mode pattern.
   (Open the short-circuit to release test mode.)

[CONTROL BOARD]



Before adjustment

Put the set into test mode and perform the following checks. Repair if there are any problems.

- **Sled Motor Check**

1. press ⏯ key, then press OFF button.
2. Press ⏭ , ⏮ keys and confirm that the Optical pick-up moves smoothly from the innermost to outermost circumference and back smoothly and with no catching or abnormal noises. (Cancellation of BTL mute)
   ⏭ : Optical pick-up moves to the outer circumference
   ⏮ : Optical pick-up moves to the inner circumference

- **Focus Search Check**

1. Press ⏯ key. (Focus search operation is performed continuously.)
2. Look at the Optical pick-up objective lens and confirm that it moves up and down smoothly, with no catching or abnormal noises.
3. Press ⏹ button.
   Confirm that focus search operation stops. If it does not , press ⏹ button again longer.
   Note : When the malfunction is occurred by mis-passing other keys, turn off the power and check again from making the test mode.

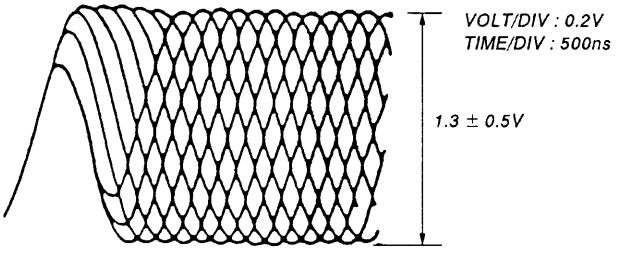
Focus Bias Adjustment

This adjustment is to be done when the optical block is replaced.

Adjustment procedure :

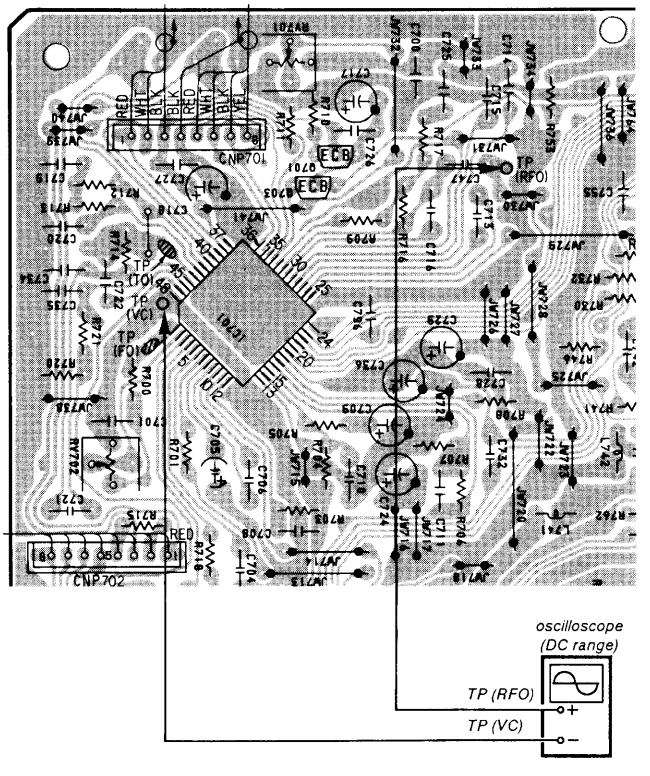
1. Connect oscilloscope to test point TP (VC) and TP (RFO) on main board.
2. Put the set into test mode.
3. Optical pick-up setting to the center by ⏭ or ⏮ button pushing.
4. Put disc (YEDS-18) in and press the ⏯ button.
5. Press the DISPLAY/ENTER button.(Tracking servo ON)
6. Adjust RV701 so that the oscilloscope waveform is as shown in the figure below (eye pattern).
   A good eye pattern means that the diamond shape (◇) in the center of the waveform can be clearly distinguished.
7. Release test mode after adjustment is completed.

- RF signal reference waveform (eye pattern)



When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

[CD BOARD]



Focus/Tracking Gain Adjustment

A frequency responce analyzer is necessary in order to perform this adjustment exactly.

However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.

Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.

However, as these reciprocate, the adjustment is at the point where both are satisfied.

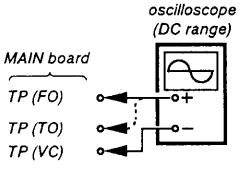
- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

Symptoms \ Gain	Focus	Tracking
● The time until music starts becomes longer for STOP → ▷ PLAY or automatic selection. (⏮, ⏭ buttons pressed.) (Normally takes about 2 seconds.)	low	low or high
● Music does not start and disc continues to rotate for STOP →▷ PLAY or automatic selection. (⏮, ⏭ buttons pressed.)	–	low
● Sound is interrupted during PLAY. Or time counter display stops progressing.	–	low
● More noise during 2-axis device operation.	high	high

The following is a simple adjustment method.

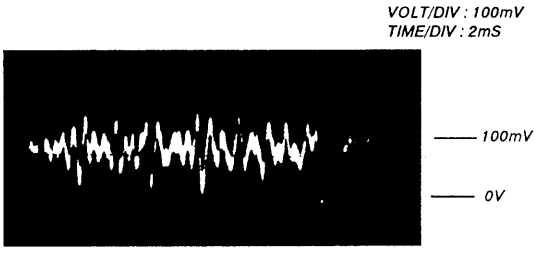
– Primary Adjustment –

Note : Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment.If the positions after the primary adjustment are only a little different, return the controls to the original position.

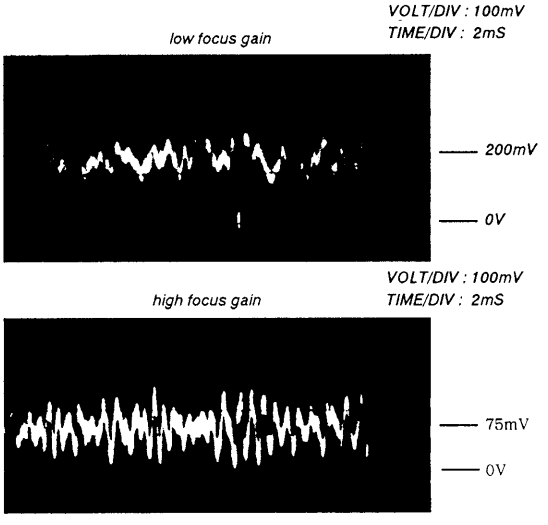


Procedure :

1. Keep the set horizontal.
   (If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2-axis device.)
2. Insert disc (YEDS-18) and press ▷II button.
3. Connect oscilloscope to TP(FO) and TP (VC) on MAIN board.
4. Adjustment RV702 on digital board so that the waveform is as shown in the figure below. (focus gain adjustment)

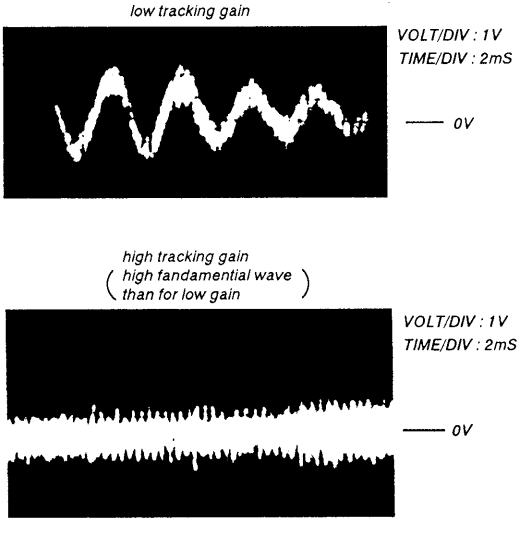


- Incorrent Examples (DC level changes more than on adjusted waveform)

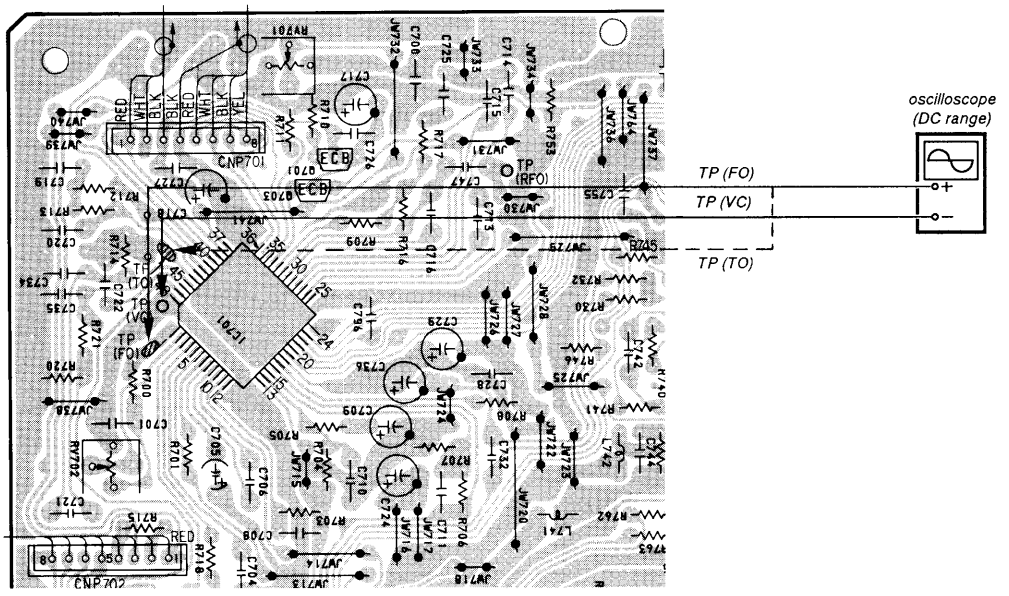


5. Connect oscilloscope to TP(TO) and TP(VC) on MAIN board.
6. Confirm that the waveform is as shown in the figure below.

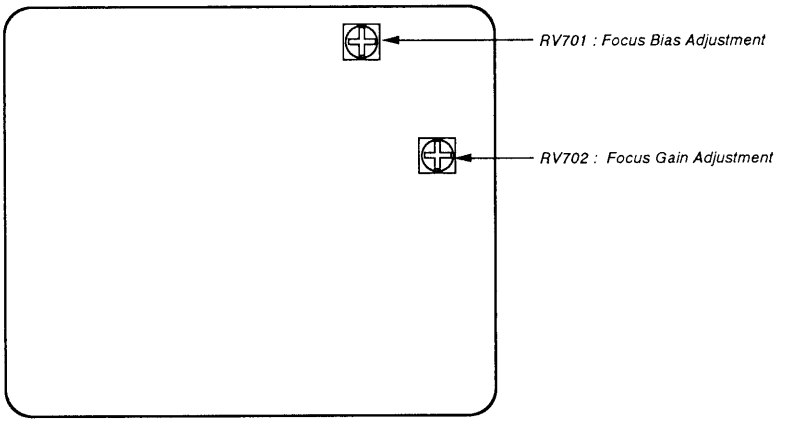
- Incorrect Examples (fundamential wave appears)



【CD BOARD】



Adjustment Location : CD board (Component side)



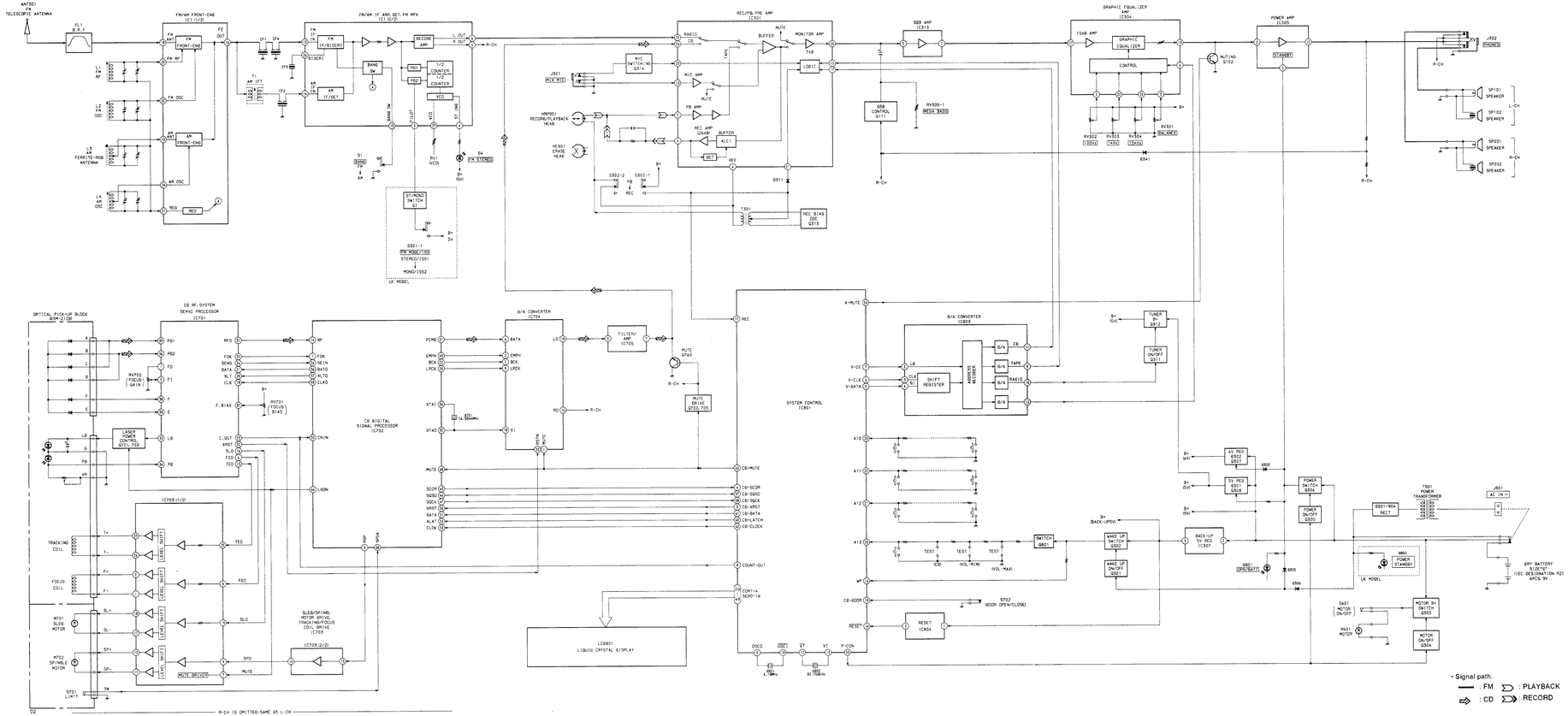
SECTION 6
EXPLANATION OF IC TERMINALS

IC801 MSM65352B-015GS-VK

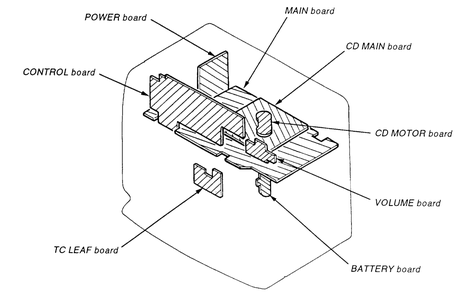
Pin No.	Pin name	I/O	Description
1	CD-SENSE	–	CD SENSE input terminal. (GND connected for this unit)
2	CD-SLED	–	CD SLED input terminal. (GND connected for this unit)
3	CD-XRST	O	CD reset output terminal.
4	CD-SCOR	I	CD SCOR input terminal.
5	V-DATA	O	D/A data output terminal.
6	V-CLK	O	D/A CLK output terminal.
7	V-CE	O	D/A CE output terminal.
8	COUN OUT	O	Power key output terminal.
9	OSC0	O	System clock OSC. (4.19MHz)
10	$\overline{\text{OSC1}}$	I	System clock OSC. (4.19MHz)
11	D-GND	–	Digital power supply. (GND)
12	$\overline{\text{XT}}$	I	XT side OSC. (32.768kHz)
13	XT	O	XT side OSC. (32.768kHz)
14	$\overline{\text{RESET}}$	I	System reset terminal.
15	A-GND	–	Analog power supply. (GND)
16	WP	I	Wake up signal input terminal.
17	REC	I	Record signal input terminal.
18	CD-DOOR	I	CD door close input.
19	AI4	I	Single/double deck select terminal. Single : H
20	AI3	I	TEST1, TEST2, TEST3 terminal.
21	AI2	I	Volume (+), Volume (–), PLAY MODE, DISPLAY/ENTER.
22	AI1	I	□, ▷II, ⏮, ⏭
23	AI0	I	CD, RADIO, TAPE.
24	A 5V	–	A/D converter section power supply. (+5V)
25	V_{DD} 3	–	LCD Bias.
26	V_{DD} 1	–	LCD Bias.
27	V_{DD} 2	–	LCD Bias.
28	V_{DD} L	–	LCD Bias GND. (Not used)
29 – 32	COM 1 – 4	O	LCD Common drive.
33 – 52	SEG0 – 19	O	LCD Segment drive.
53	P-CON	O	System power ON signal output terminal.
54	A-MUTE	O	Audio mute output terminal.
55	GFS	I	CD GFS signal input terminal.
56	——	–	Not used.
57	CD-SQSO	I	CD SUB Q signal input terminal.
58	CD-SQCK	I	CD SUB Q clock input terminal.
59	REMOCON	I	Remote control signal input terminal.
60	CD-LATCH	O	CD LACTCH output terminal.
61	CD-DATA	O	CD data output terminal.
62	CD-CLOCK	O	CD clock output terminal.
63	CD-MUTE	O	CD mute output terminal.
64	D 5V	O	Digital power supply. (+5V)

SECTION 7
DIAGRAMS

7-1. BLOCK DIAGRAM



● CIRCUIT BOARD LOCATION



● SEMICONDUCTOR LEAD LAYOUTS

LA4597

2SD2394-EF

SLZ-190B-06-T1
SLZ-190B-10-T1

PST572D

2SB1013-4
2SC1815-GR

S-81250PG

GL3PR8

DTA114YS
DTC143ES
DTC144WS
RN1202
RN1207

RD5.6ES-B2
RD6.8ES-B2
1SS119
1SS133

2SC2785-HFE

1N5401TM

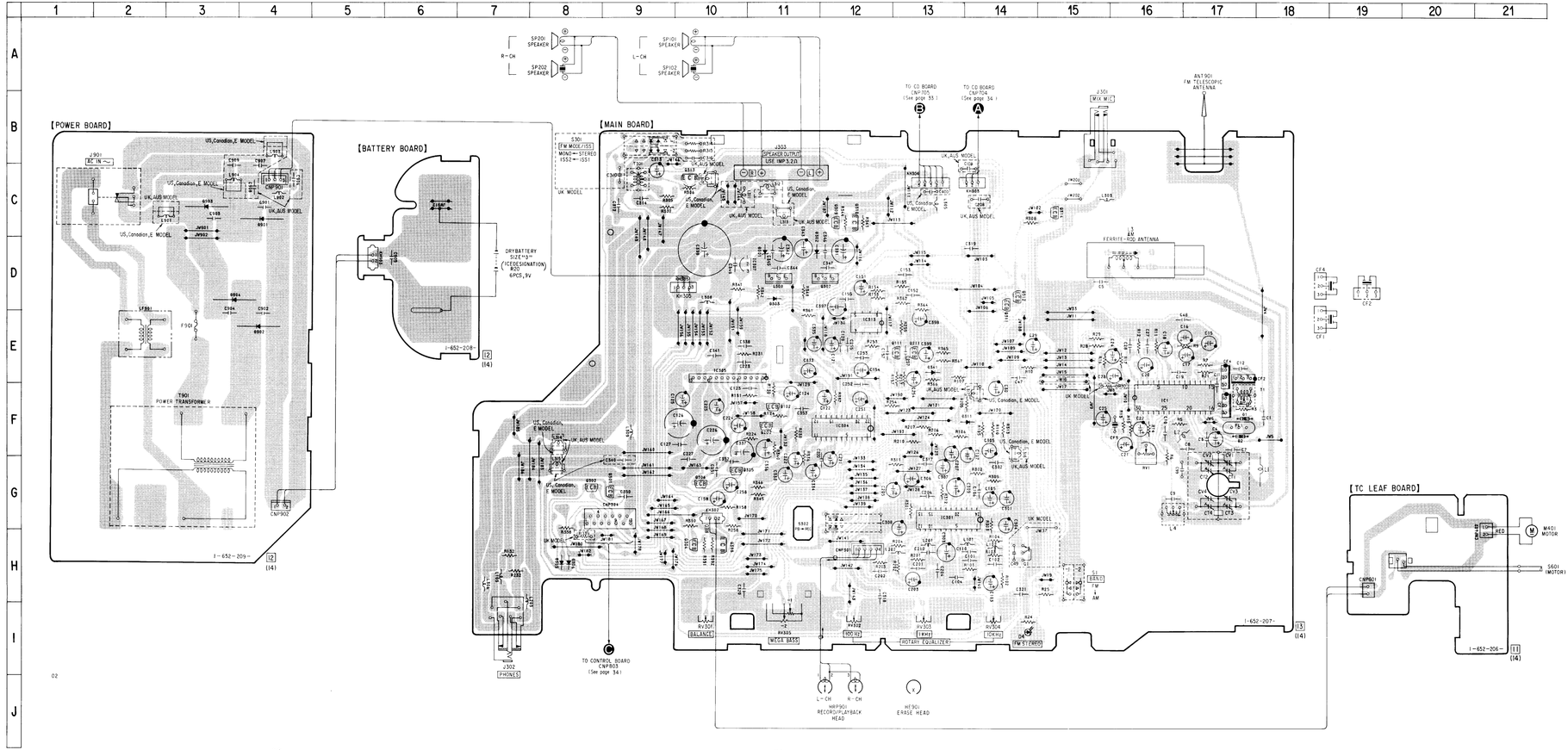
● SEMICONDUCTOR LOCATION

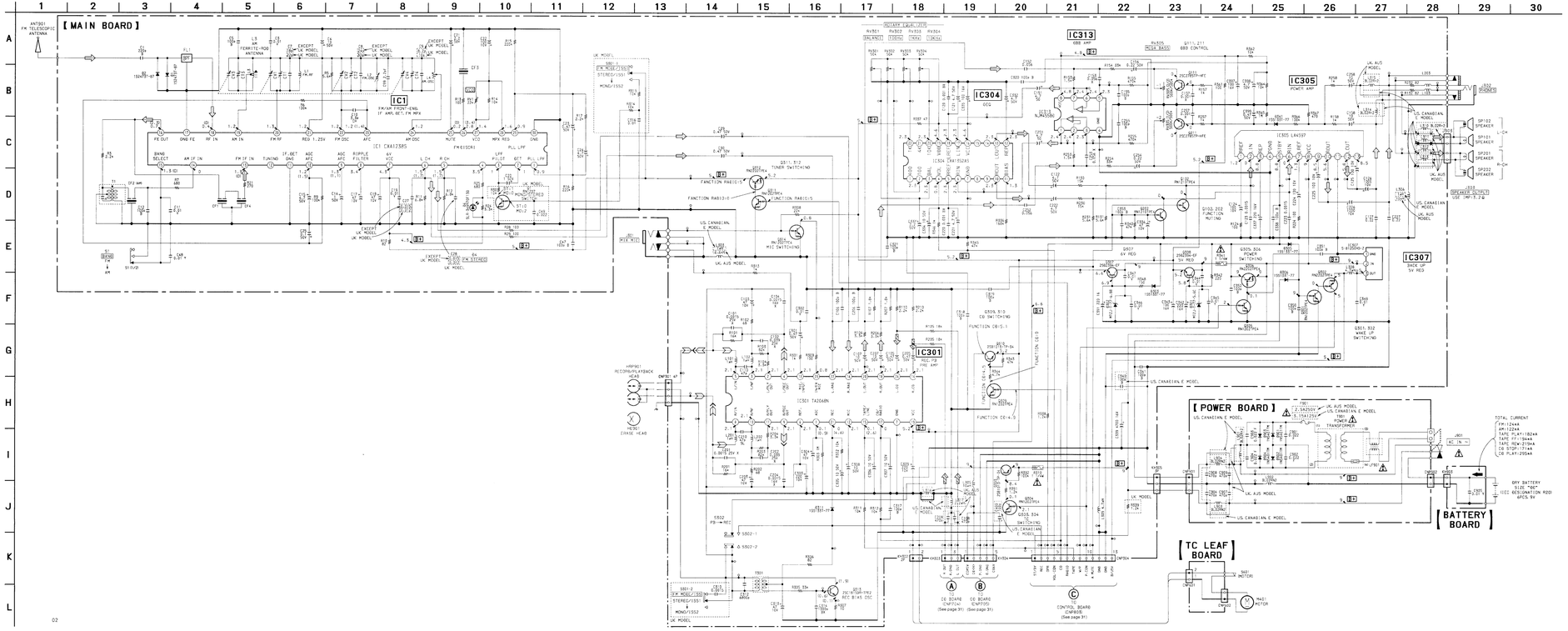
Ref. No.	Location
D1	F - 17
D2	F - 17
D4	I - 14
D301	D - 11
D302	D - 11
D303	D - 11
D305	H - 8
D306	H - 8
D311	F - 14
D341	E - 13
D901	C - 4
D902	E - 4
D903	C - 3
D904	D - 3
IC1	F - 16
IC301	G - 13
IC304	F - 12
IC305	E - 10
IC307	D - 11
IC313	E - 12
Q1	H - 14
Q102	F - 11
Q111	E - 13
Q202	F - 11
Q211	E - 13
Q301	G - 9
Q302	G - 8
Q303	H - 10
Q304	H - 10
Q305	G - 10
Q306	G - 10
Q307	D - 12
Q308	D - 11
Q309	C - 12
Q310	C - 12
Q311	D - 14
Q312	D - 14
Q313	C - 10
Q314	C - 15

Note:

- ○— : parts extracted from the component side.
- ▒▒ : Pattern on the side which is seen.

7-2. PRINTED WIRING BOARDS (MAIN SECTION)





Note :

- All capacitors are in μ F unless otherwise noted. pF: μ μ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : internal component.

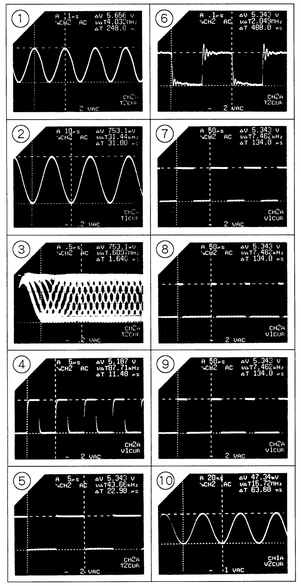
Note :	Note :
The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- B+ : B+ Line
- ▭ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  - no mark : FM (RADIO SECTION)
  - ( ) : AM (RADIO SECTION)
  - no mark : PLAYBACK (AUDIO SECTION)
  - ( ) : REC (AUDIO SECTION)
  - no mark : STOP (CD SECTION)
  - ( ) : PLAYBACK (CD SECTION)
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM ⇨ : PB ⇨ : CD ⇨ : REC

7-4. SCHEMATIC DIAGRAM (CD SECTION)

• Refer to page 36 for IC Block Diagrams. • Refer to page 26 for Note.

• WAVEFORMS



【CD MAIN BOARD】

【CONTROL BOARD】

【VOLUME BOARD】

【CD MOTOR BOARD】

OPTICAL PICK-UP BLOCK (KSM-212B)

IC701 CD AV & SYSTEM SERVO PROCESSOR

IC702 CD DIGITAL SIGNAL PROCESSOR

IC703 SLED/SPINDLE MOTOR DRIVE

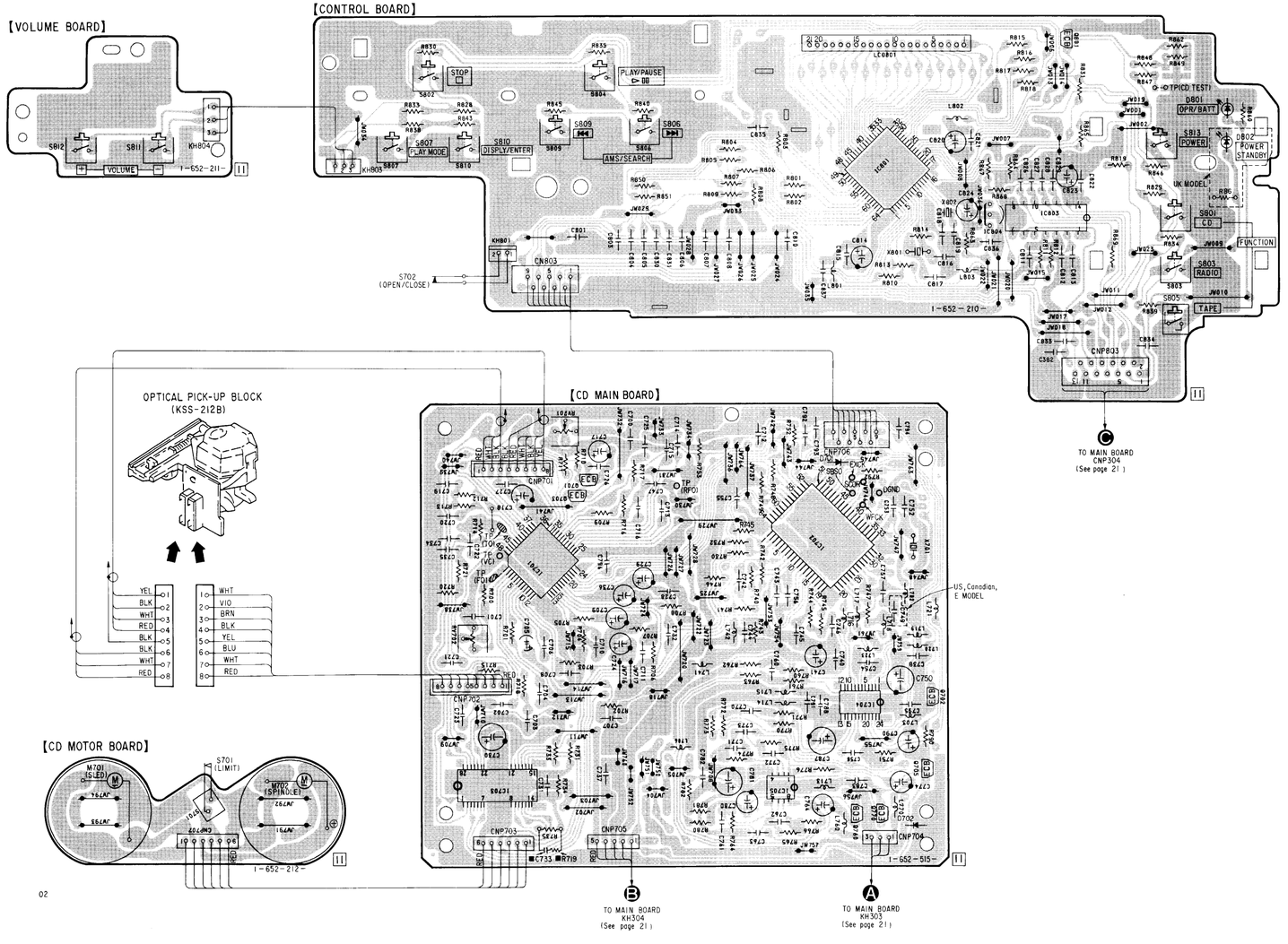
IC704 D/A CONVERTER

IC705 AMP

IC801 MONASSY SYSTEM CONTROL

IC803 MULTIBIT D/A CONVERTER

IC804 RESET



● **SEMICONDUCTOR LOCATION**

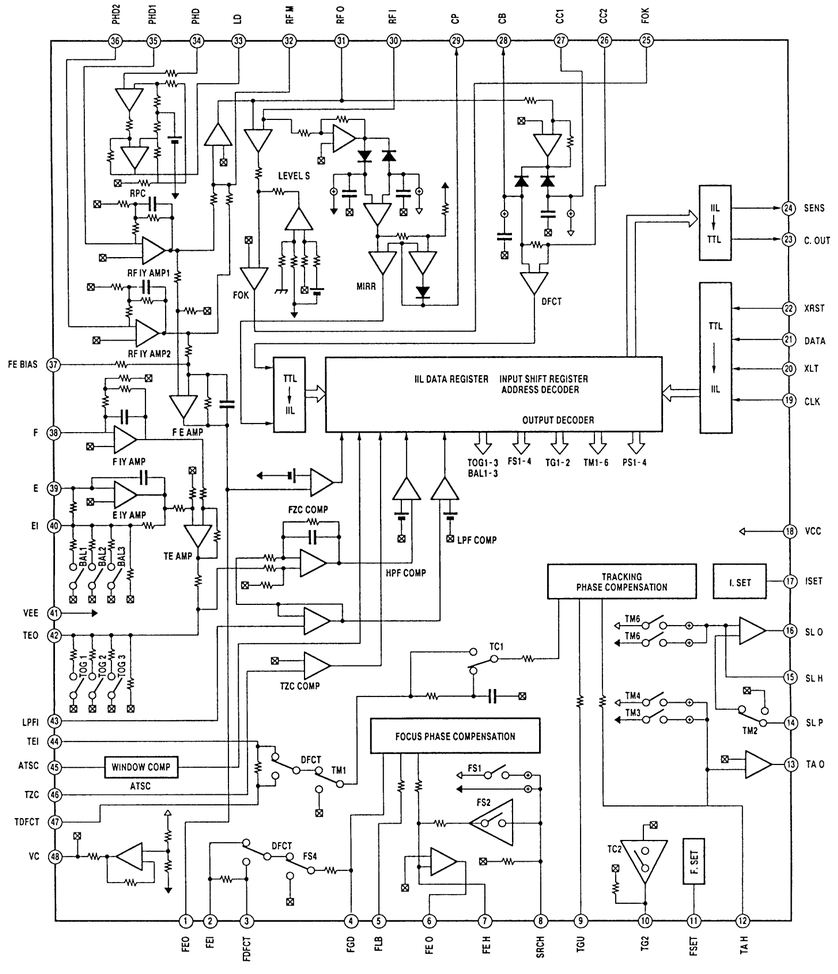
Ref. No.	Location
D701	E - 9
D801	B - 12
D802	B - 12
IC701	F - 6
IC702	F - 9
IC703	H - 6
IC704	H - 9
IC705	H - 8
IC801	C - 9
IC803	C - 11
IC804	C - 10
Q701	F - 6
Q702	H - 10
Q703	F - 6
Q705	H - 10
Q760	I - 9
Q770	I - 9
Q801	A - 11

Note:

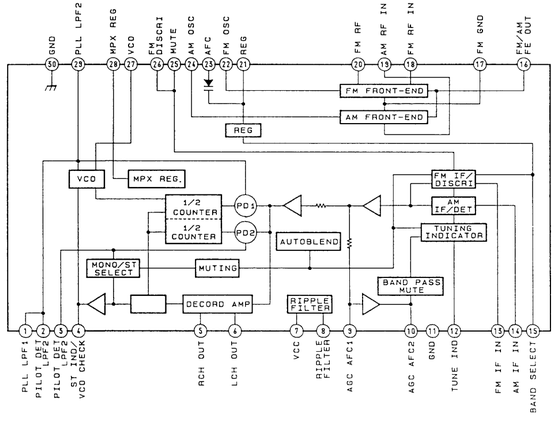
- ○— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- ▒▒ : Pattern on the side which is seen.

● IC BLOCK DIAGRAMS

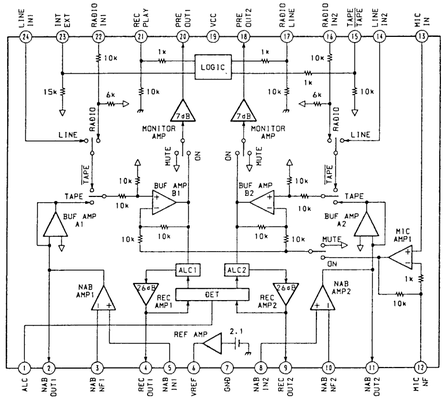
IC701 CXA1782BQ



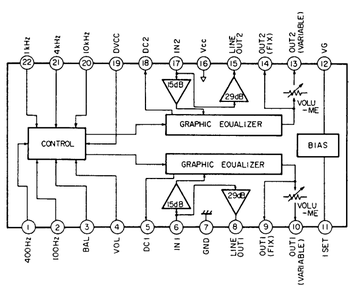
IC1 CXA1238S



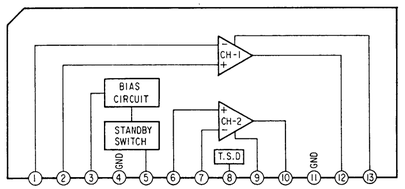
IC301 TA2068N



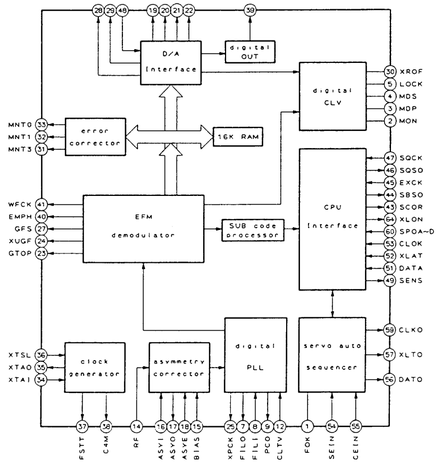
IC304 CXA1352AS



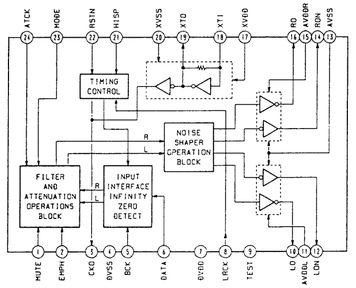
IC305 LA4597



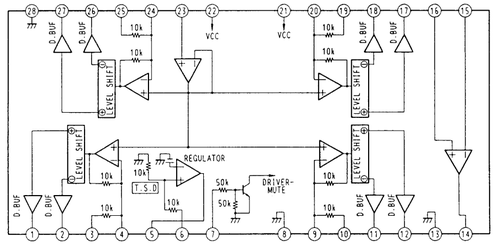
IC702 CXD2517Q



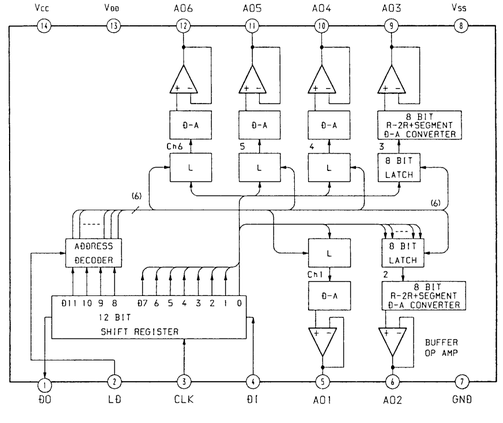
IC704 SM5874AM1



IC703 BA6296FP



IC803 M62354P



SECTION 8
EXPLODED VIEWS

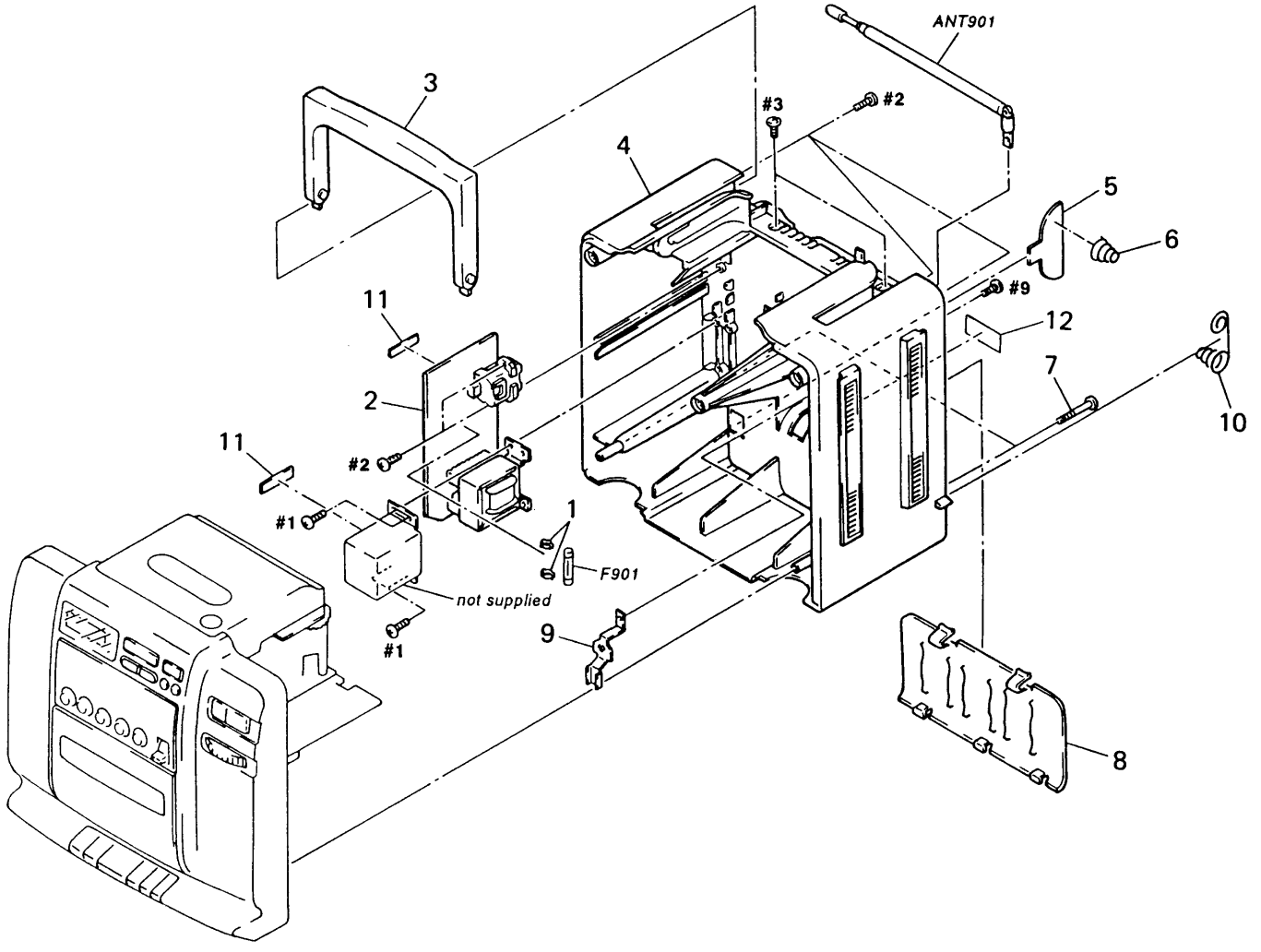
NOTE :

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  AUS : Australian

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

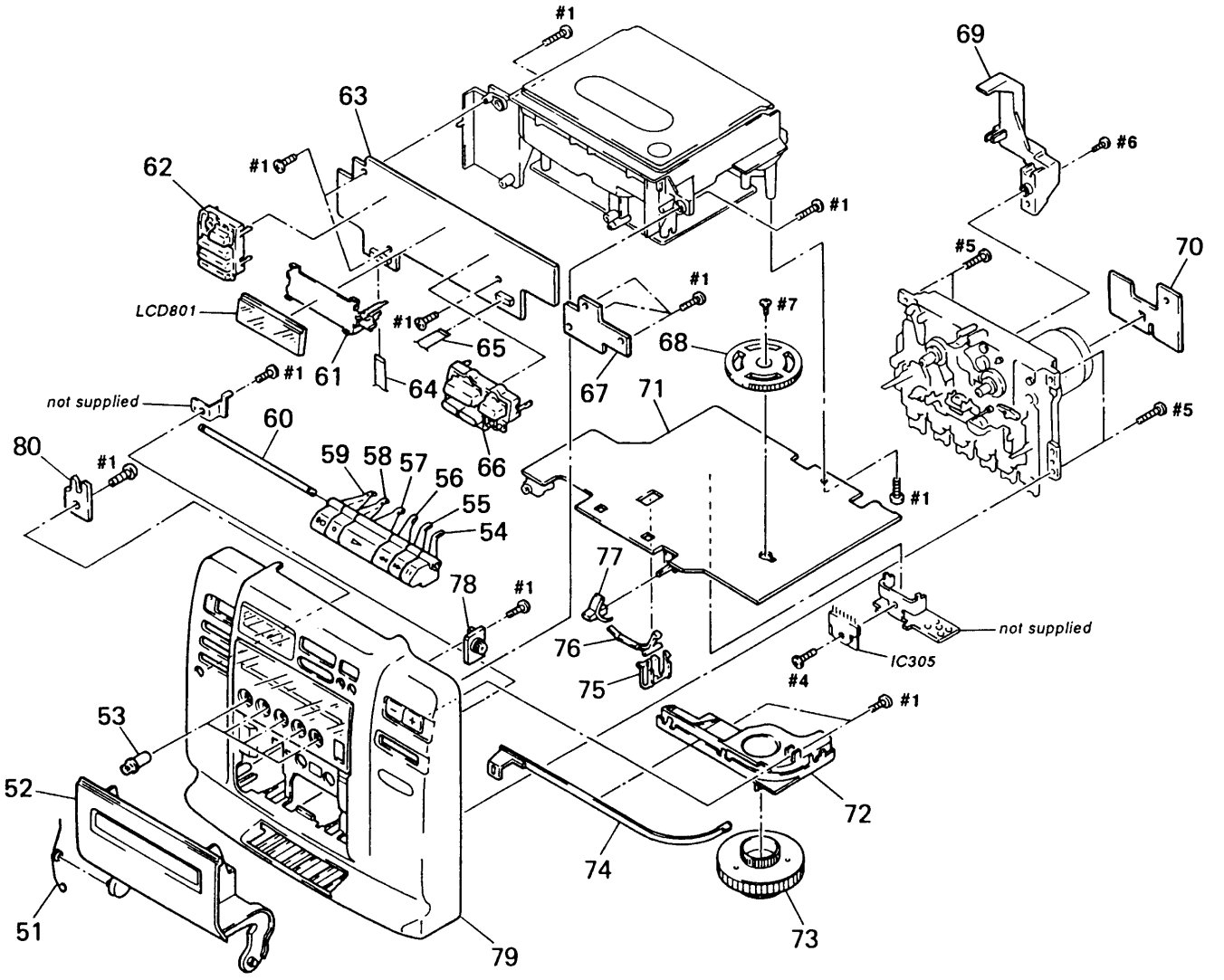
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

8-1. CABINET (REAR) SECTION



Ref. No.	Part No.	Description	Remark
1	1-533-233-11	HOLDER, FUSE	
* 2	1-652-209-11	POWER BOARD	
3	X-3368-180-1	HANDLE ASSY	
* 4	3-912-339-01	CABINET (REAR) (US, E)	
* 4	3-912-339-61	CABINET (REAR) (UK)	
* 4	3-912-340-01	CABINET (REAR) (Canadian, AUS)	
* 5	1-652-208-11	BATTERY BOARD	
6	3-912-376-01	SPRING (BATT)	
7	3-913-413-01	SCREW (BV 3X35)	
8	3-913-758-01	LID, BATTERY CASE	
9	3-912-368-01	TERMINAL (ANT)	
10	3-379-412-11	TERMINAL (+ -), BATTERY	
* 11	3-376-847-01	CUSHION, SARANET	
* 12	4-941-548-01	LABEL, CLASS (1) (UK)	
ANT901	1-501-383-21	ANTENNA, TELESCOPIC	
⚠F901	1-532-286-00	FUSE 2.5A 250V (UK, AUS)	
⚠F901	1-576-107-11	FUSE 3.15A 125V (US, Canadian, E)	

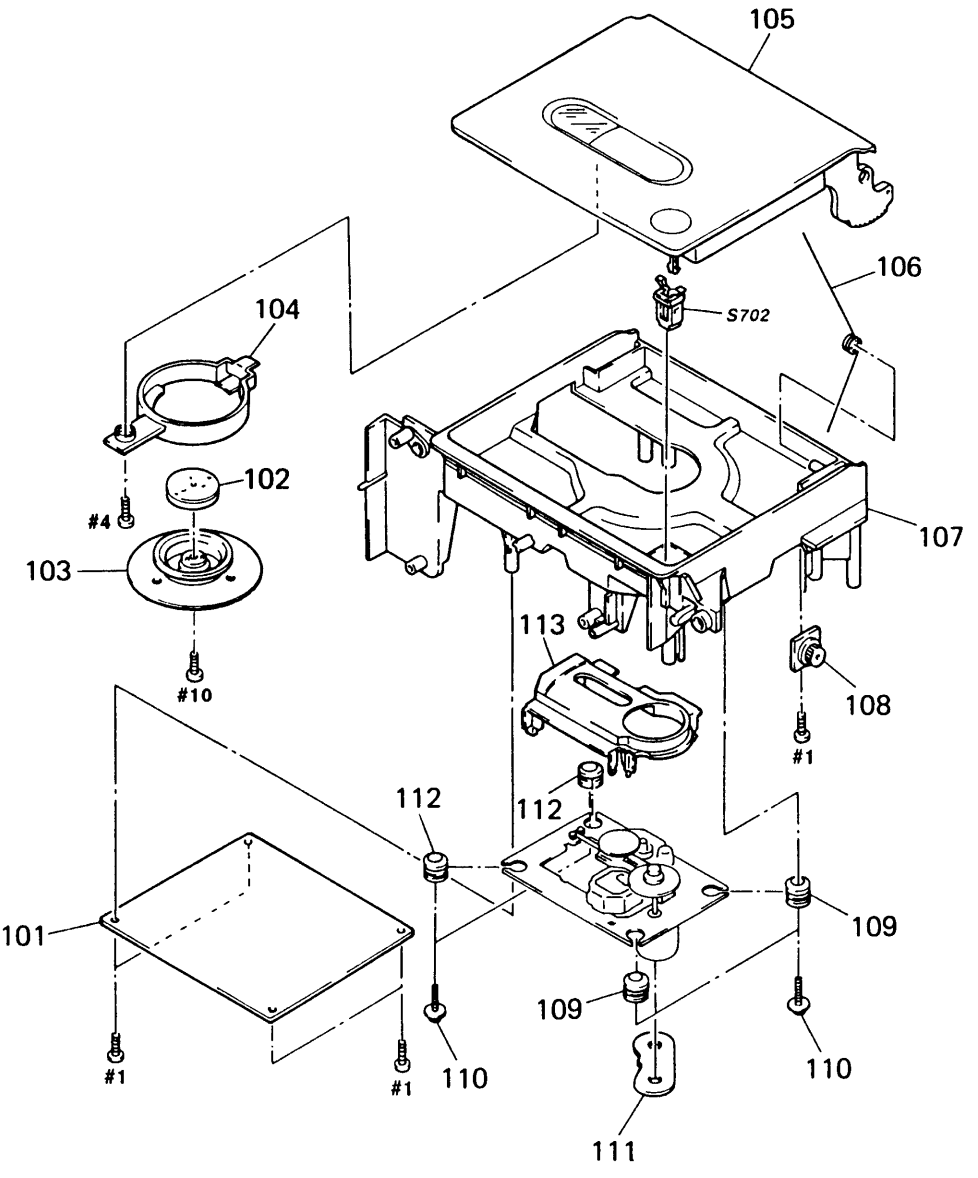
8-2. CABINET (FRONT) SECTION



Ref. No.	Part No.	Description	Remark
51	3-912-375-01	SPRING (CASSETTE)	
52	A-3300-566-A	HOLDER ASSY, CASSETTE	
53	3-912-365-01	KNOB (REQ)	
54	3-912-356-01	BUTTON (PAUSE), MD	
55	3-912-353-01	BUTTON (FF), MD	
56	3-912-354-01	BUTTON (REW), MD	
57	3-912-355-01	BUTTON (PLAY), MD	
58	3-912-352-01	BUTTON (REC), MD	
59	3-912-351-01	BUTTON (STOP), MD	
* 60	3-912-370-01	SHAFT, MD	
* 61	3-912-371-01	HOLDER (LCD)	
62	3-912-345-01	BUTTON (FUNC)	
* 63	A-3269-204-A	CONTROL BOARD, COMPLETE	(US, Canadian, AUS, E)
* 63	A-3269-244-A	CONTROL BOARD, COMPLETE (UK)	
64	1-765-666-11	WIRE, PARALLEL (FFC) (13 CORE)	
65	1-765-665-11	WIRE, PARALLEL (FFC) (9 CORE)	
66	3-912-349-01	BUTTON (CD)	
* 67	1-652-211-11	VOLUME BOARD	

Ref. No.	Part No.	Description	Remark
68	3-912-338-01	GEAR (VC)	
* 69	3-912-403-01	LEVER (REC PUSH)	
* 70	1-652-206-11	TC LEAF BOARD	
* 71	A-3269-202-A	MAIN BOARD, COMPLETE	(US, Canadian, E)
* 71	A-3269-242-A	MAIN BOARD, COMPLETE (UK)	
* 71	A-3269-561-A	MAIN BOARD, COMPLETE (AUS)	
* 72	3-912-358-01	CHASSIS (DIAL)	
73	3-912-346-01	KNOB (TUNE)	
74	3-912-344-01	POINTER	
* 75	3-912-364-01	HOLDER (REC)	
76	3-322-317-01	LEVER, REC	
77	3-912-357-01	KNOB (BAND)	
78	3-351-377-01	DAMPER	
79	A-3300-565-A	CABINET SUB ASSY, FRONT	(US, Canadian, AUS, E)
79	A-3300-658-A	CABINET SUB ASSY, FRONT (UK)	
* 80	1-653-168-11	H/P SUPPORT BOARD	
IC305	8-719-820-22	IC LA4597	
LCD801	1-810-499-11	DISPLAY PANEL, LIQUID CRYSTAL	

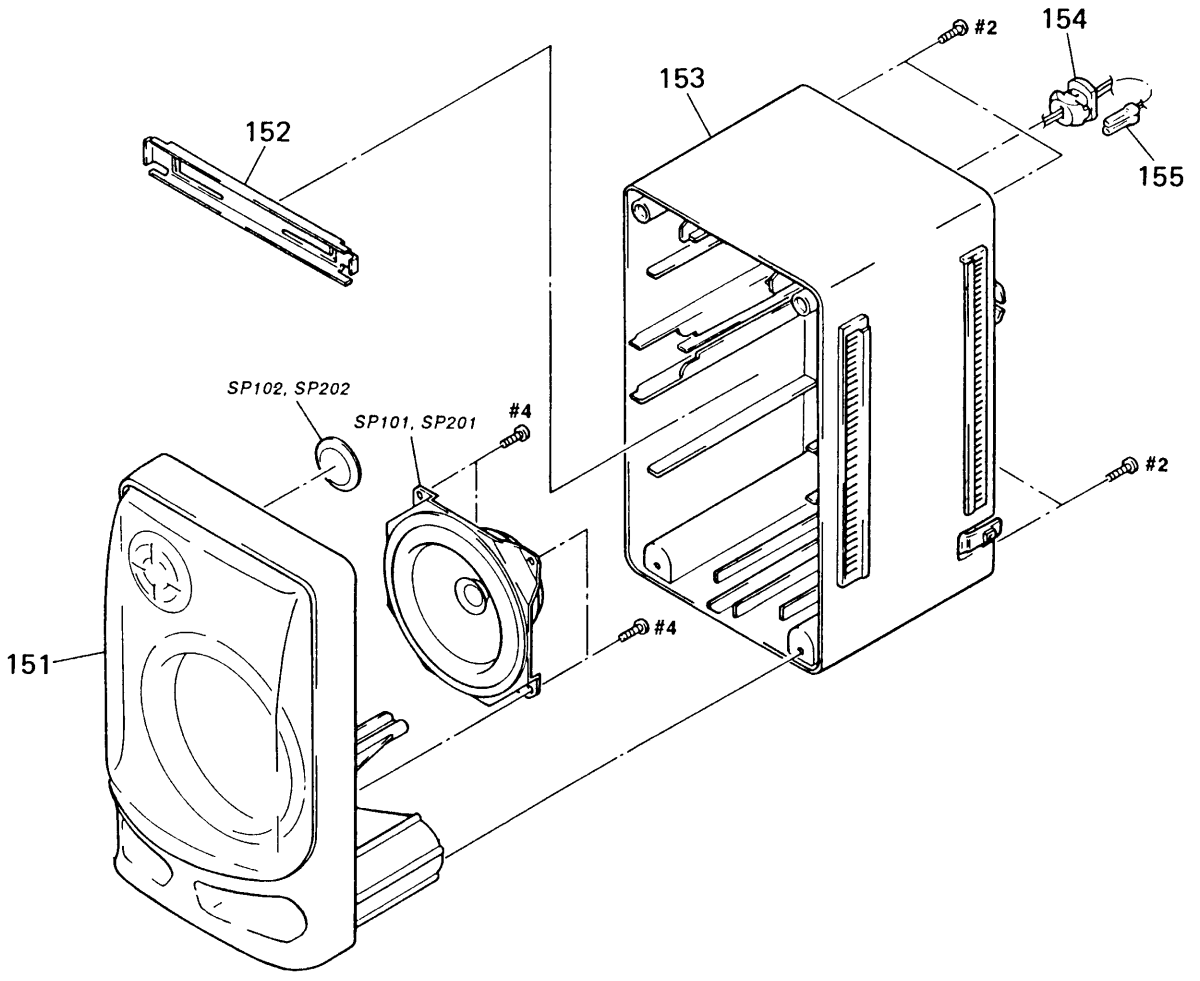
8-3. CD SECTION



Ref. No.	Part No.	Description	Remark
* 101	A-3269-203-A	CD MAIN BOARD, COMPLETE(US, Canadian, E)	
* 101	A-3269-243-A	CD MAIN BOARD, COMPLETE(UK, AUS)	
102	1-452-732-11	MAGNET	
103	3-910-112-01	PLATE, CHUCKING	
104	3-910-113-01	HOLDER (CHUCK)	
105	A-3300-578-A	LID SUB ASSY, CD	
106	3-912-374-01	SPRING (CD)	
* 107	3-912-341-01	CHASSIS (CD)	

Ref. No.	Part No.	Description	Remark
108	3-351-377-11	DAMPER	
109	3-910-095-11	RUBBER, VIBRATION PROOF	
110	3-916-006-01	SCREW (2.6X16)	
* 111	1-652-212-11	CD MOTOR BOARD	
112	3-910-095-01	RUBBER, VIBRATION PROOF	
113	3-910-116-01	COVER, CD	
S702	1-692-960-11	SWITCH, PUSH (1 KEY)	

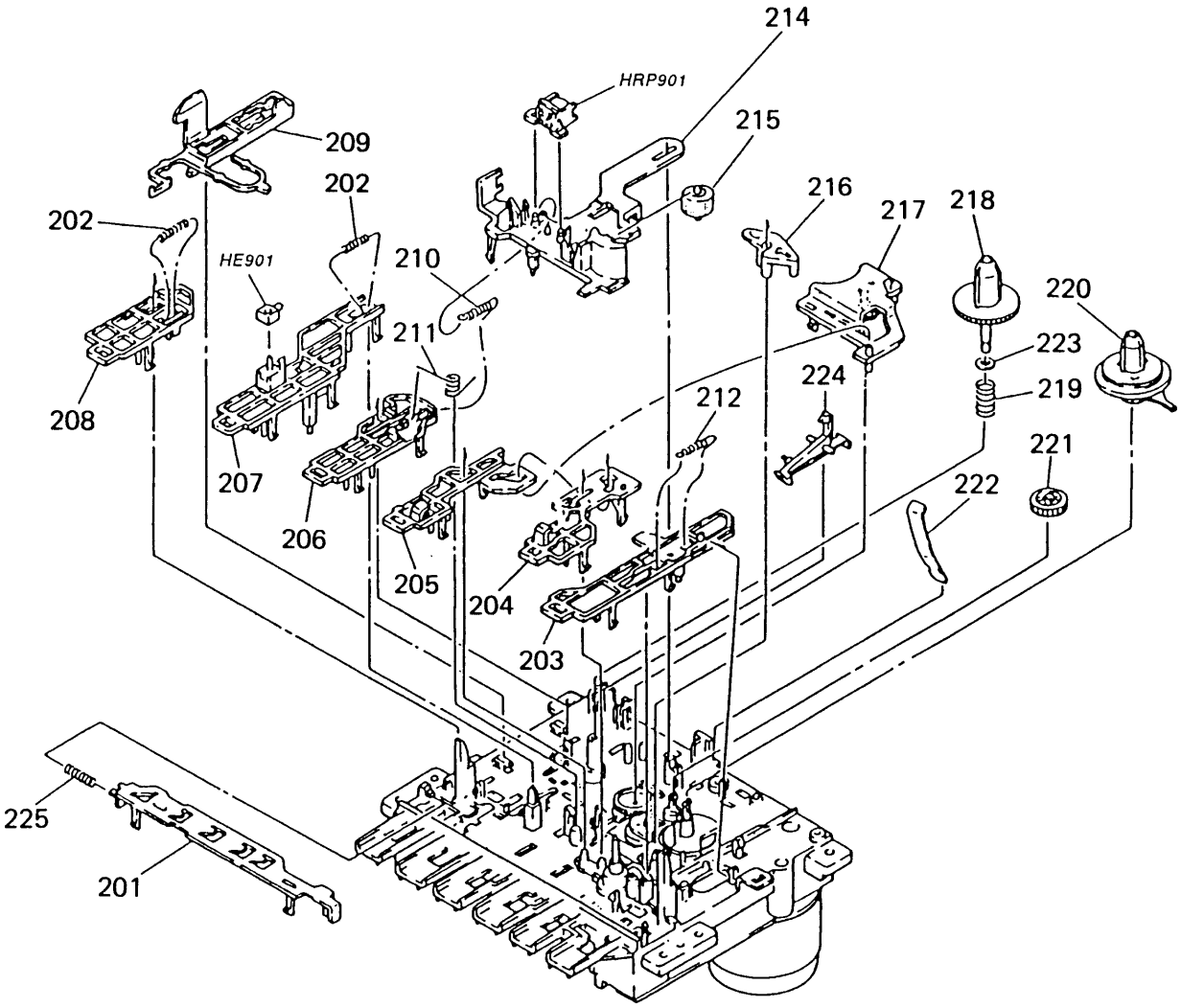
8-4. SPEAKER SECTION



Ref. No.	Part No.	Description	Remark
151	X-3368-181-1	SPK (FRONT) SUB ASSY (L)	
151	X-3368-182-1	SPK (FRONT) SUB ASSY (R)	
* 152	3-912-367-01	BRACKET (SPK)	
* 153	3-912-361-01	BOX (REAR) (L), SPK	
* 153	3-912-362-01	BOX (REAR) (R), SPK	
* 154	3-912-363-01	STOPPER, CORD	

Ref. No.	Part No.	Description	Remark
155	1-559-620-11	CORD (WITH CONNECTOR)	
SP101	1-504-269-21	SPEAKER (10CM) (L-CH)	
SP102	1-529-058-11	BUZZER (L-CH)	
SP201	1-504-269-21	SPEAKER (10CM) (R-CH)	
SP202	1-529-058-11	BUZZER (R-CH)	

8-5. MECHANISM DECK SECTION (1)
(MF-204-64)

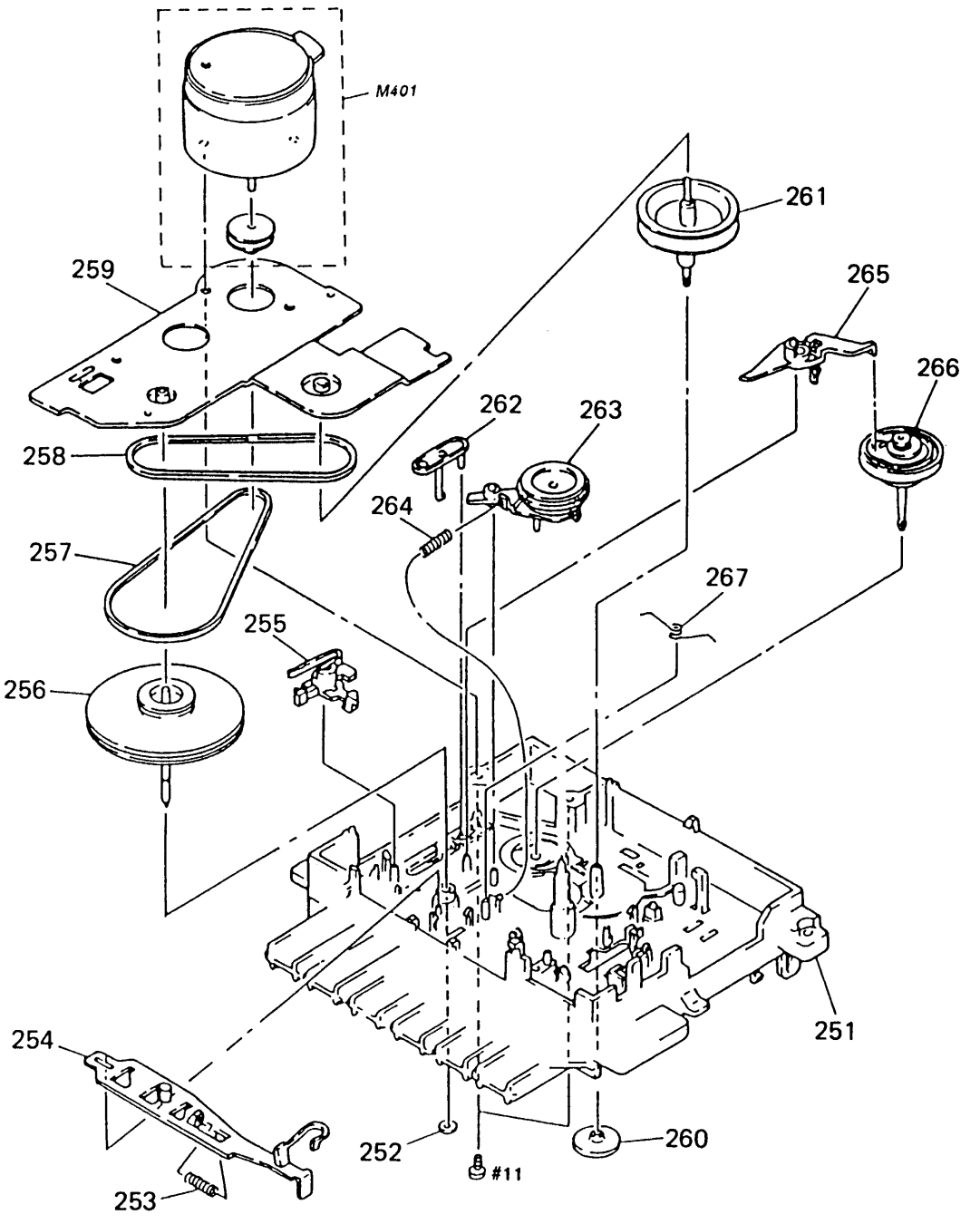


Ref.No.	Part No.	Description	Remark
201	4-932-695-01	SLIDER (FR), LOCK	
202	4-932-648-01	SPRING, COMPRESSION	
203	4-928-994-01	LEVER, PAUSE	
204	4-928-993-01	LEVER, FF	
205	4-928-992-01	LEVER, REW	
206	4-928-991-01	LEVER, PLAY	
207	4-934-511-01	LEVER (S), REC	
208	4-928-985-11	LEVER, STOP	
209	4-936-206-01	SLIDER (S), EJECT	
210	4-928-972-01	SPRING, TENSION	
211	4-928-973-01	SPRING	
212	3-313-372-01	SPRING, TENSION	
214	4-932-693-03	DECK (S), HEAD	
215	4-928-962-01	PINCH ROLLER	

Ref.No.	Part No.	Description	Remark
216	4-928-982-01	LEVER (C)	
217	X-4920-347-1	LEVER (S) ASSY, FR	
218	4-928-978-01	GEAR (C), SUPPLY REEL	
219	3-343-381-01	SPRING, COMPRESSION	
220	X-4920-350-1	GEAR (S) ASSY, T REEL	
221	3-343-285-01	GEAR, FF	
222	4-928-957-01	RETAINER, CASSETTE	
223	4-931-795-11	WASHER	
224	4-928-960-02	CLAW, SAFETY	
225	4-932-656-01	SPRING, COMPRESSION	
HE901	1-543-876-11	HEAD (ERASE)	
HRP901	1-543-628-11	HEAD, MAGNETIC (RECORD/PLAYBACK)	

8-6. MECHANISM DECK SECTION (2)

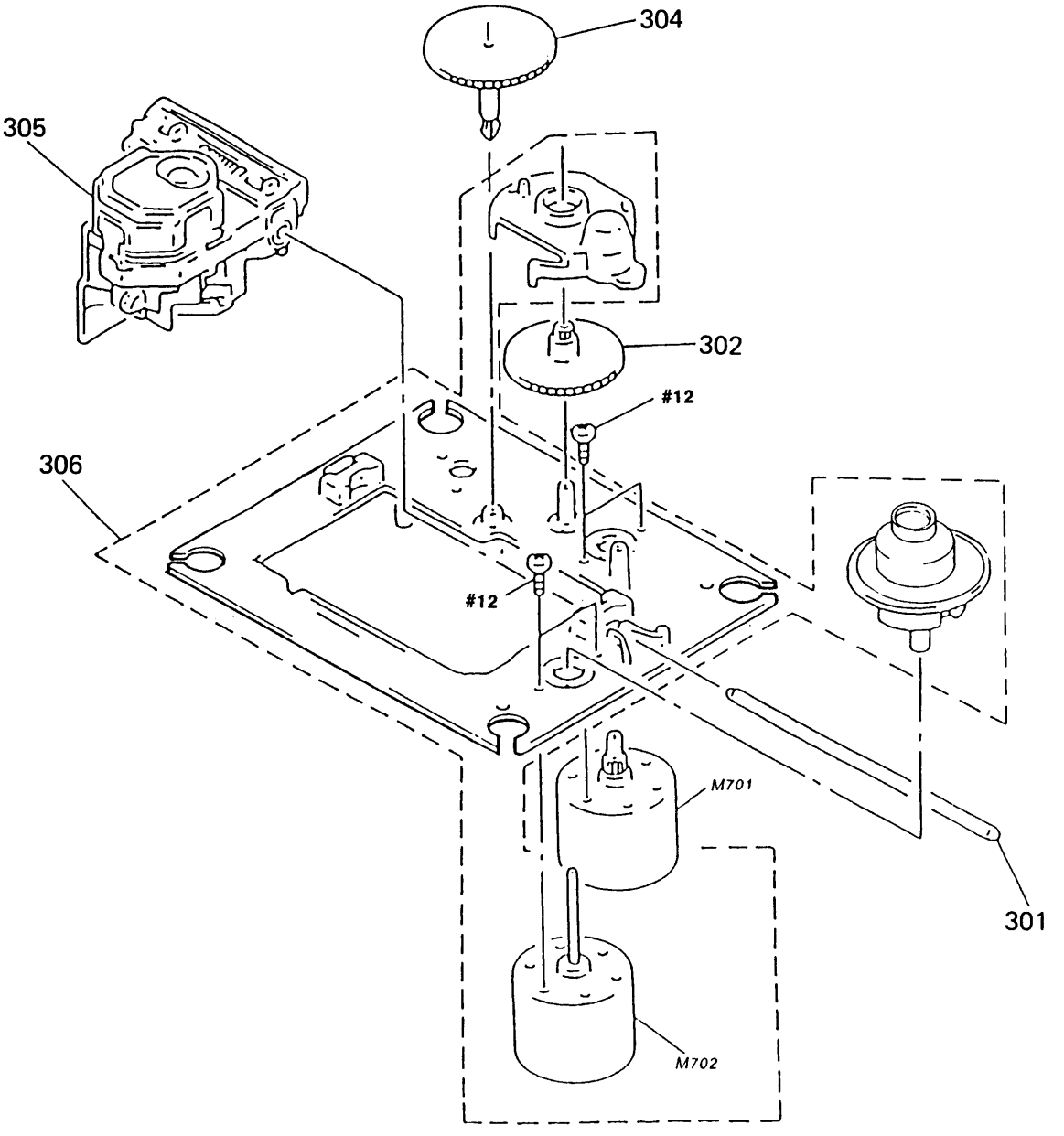
(MF-204-64)



Ref. No.	Part No.	Description	Remark
251	X-4920-348-1	CHASSIS (S) ASSY, MECHANICAL	
252	3-343-358-01	RING, RETAINING	
253	3-388-999-01	SPRING, COMPRESSION	
254	4-928-996-11	LEVER, SW	
255	4-928-987-01	LEVER (T), SHUT-OFF	
256	X-4920-349-1	WHEEL (S) ASSY, CAPSTAN	
257	4-928-951-01	BELT (CAPSTAN)	
258	4-928-974-01	BELT (MIDWAY)	
* 259	X-3367-597-1	PLATE ASSY, GROUND	

Ref. No.	Part No.	Description	Remark
260	4-928-967-01	GEAR (C), MIDWAY	
261	X-4918-580-4	PULLEY ASSY, FR	
262	4-928-961-01	PLATE, PAUSE LOCK	
263	X-4920-346-1	LEVER (S) ASSY, IDLER	
264	3-905-168-01	SPRING, COMPRESSION	
265	4-928-986-01	LEVER (S), SHUT-OFF	
266	X-4918-582-1	PLATE ASSY, TAKE-UP REEL	
267	4-928-958-01	SPRING, FR RETURN	
M401	X-4919-956-1	MOTOR ASSY	

8-7. OPTICAL PICK-UP SECTION
(KSM-212BAN)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
301	6-626-908-01	SHAFT (S), SLED	
302	2-627-003-01	GEAR (B) (RP)	
304	2-626-907-01	GEAR (A) (S)	
⚠305	8-848-337-11	DEVICE, OPTICAL KSS-212B	

Ref. No.	Part No.	Description	Remark
306	X-2625-770-1	CHASSIS ASSY (MB) (RP), MOTOR (INCLUDING M702) (SPINDLE)	
M701	X-2625-769-1	GEAR ASSY (MB) (RP), MOTOR (SLED)	

BATTERY **CD MAIN**

SECTION 9
ELECTRICAL PARTS LIST

NOTE :
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL : Metal-film resistor
  METAL OXIDE : Metal oxide-film resistor
  F : nonflammable
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ , for example :
  uA.... : μ A.... , uPA.... : μ PA....
  uPB.... : μ PB.... , uPC.... : μ PC....
  uPD.... : μ PD....
- CAPACITORS
  uF : μ F
- COILS
  uH : μ H
- Abbreviation
  AUS : Australian

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref.No.	Part No.	Description			Remark
*	1-652-208-11	BATTERY BOARD			
		**********			
	3-912-376-01	SPRING (BATT)			
		< CAPACITOR >			
C905	1-162-306-11	CERAMIC	0.01uF	20%	16V
		< CABLE HOLDER >			
* KH903	1-573-287-11	HOLDER, CABLE 2P			
**********					
*	A-3269-203-A	CD MAIN BOARD, COMPLETE (US, Canadian, E)			
		**********			
*	A-3269-243-A	CD MAIN BOARD, COMPLETE (UK, AUS)			
		**********			
		< CAPACITOR >			
C700	1-161-379-00	CERAMIC	0.01uF	20%	25V
C701	1-161-375-00	CERAMIC	0.0022uF	20%	50V
C702	1-136-165-00	FILM	0.1uF	5%	50V
C703	1-136-165-00	FILM	0.1uF	5%	50V
C704	1-136-165-00	FILM	0.1uF	5%	50V
C705	1-131-375-00	TANTALUM	4.7uF	10%	10V
C706	1-130-489-00	MYLAR	0.033uF	5%	50V
C707	1-130-486-00	MYLAR	0.018uF	10%	50V
C708	1-162-199-31	CERAMIC	10PF	5%	50V
C709	1-126-962-11	ELECT	3.3uF	20%	50V
C710	1-130-493-00	MYLAR	0.068uF	5%	50V
C711	1-162-215-31	CERAMIC	47PF	5%	50V
C712	1-161-379-00	CERAMIC	0.01uF	20%	25V
C713	1-130-489-00	MYLAR	0.033uF	5%	50V
C714	1-161-379-00	CERAMIC	0.01uF	20%	25V

Ref.No.	Part No.	Description			Remark
C715	1-130-489-00	MYLAR	0.033uF	5%	50V
C716	1-130-483-00	MYLAR	0.01uF	5%	50V
C717	1-124-126-00	ELECT	47uF	20%	10V
C718	1-124-907-11	ELECT	10uF	20%	50V
C719	1-161-377-00	CERAMIC	0.0047uF	30%	16V
C720	1-130-483-00	MYLAR	0.01uF	5%	50V
C721	1-130-491-00	MYLAR	0.047uF	5%	50V
C722	1-161-494-00	CERAMIC	0.022uF		25V
C723	1-130-495-00	MYLAR	0.1uF	5%	50V
C724	1-124-443-00	ELECT	100uF	20%	10V
C725	1-162-197-31	CERAMIC	6.8PF	10%	50V
C726	1-162-294-31	CERAMIC	0.001uF	10%	50V
C727	1-161-379-00	CERAMIC	0.01uF	20%	25V
C728	1-136-165-00	FILM	0.1uF	5%	50V
C729	1-124-126-00	ELECT	47uF	20%	10V
C730	1-124-472-11	ELECT	470uF	20%	10V
C731	1-162-294-31	CERAMIC	0.001uF	10%	50V
C732	1-130-484-00	MYLAR	0.012uF	5%	50V
C733	1-136-177-00	FILM	1uF	5%	50V
C734	1-161-040-00	CERAMIC	0.0012uF	10%	25V
C735	1-162-215-31	CERAMIC	47PF	5%	50V
C736	1-124-443-00	ELECT	100uF	20%	10V
C737	1-162-294-31	CERAMIC	0.001uF	10%	50V
C738	1-162-291-31	CERAMIC	560PF	10%	50V
C740	1-136-165-00	FILM	0.1uF	5%	50V
C741	1-124-126-00	ELECT	47uF	20%	10V
C742	1-136-173-00	FILM	0.47uF	5%	50V
C743	1-161-374-11	CERAMIC	0.0015uF	20%	50V
C744	1-162-286-31	CERAMIC	220PF	10%	50V
C745	1-136-169-00	FILM	0.22uF	5%	50V
C746	1-161-379-00	CERAMIC	0.01uF	20%	25V
C747	1-130-481-00	MYLAR	0.0068uF	5%	50V
C749	1-162-282-31	CERAMIC	100PF	10%	50V (US, Canadian, E)

Ref.No.	Part No.	Description			Remark
C750	1-126-176-11	ELECT	220uF	20%	10V
C752	1-102-942-00	CERAMIC	5.0PF	+-0.5PF	50V
C753	1-102-942-00	CERAMIC	5.0PF	+-0.5PF	50V
C754	1-162-291-31	CERAMIC	560PF	10%	50V
C755	1-161-377-00	CERAMIC	0.0047uF	30%	16V
C756	1-161-379-00	CERAMIC	0.01uF	20%	25V
C757	1-161-379-00	CERAMIC	0.01uF	20%	25V
C758	1-162-282-31	CERAMIC	100PF	10%	50V
C760	1-162-288-31	CERAMIC	330PF	10%	50V
C761	1-162-217-31	CERAMIC	56PF	5%	50V
C762	1-162-217-31	CERAMIC	56PF	5%	50V
C763	1-162-293-31	CERAMIC	820PF	10%	50V
C764	1-124-927-11	ELECT	4.7uF	20%	100V
C770	1-162-288-31	CERAMIC	330PF	10%	50V
C771	1-162-217-31	CERAMIC	56PF	5%	50V
C772	1-162-217-31	CERAMIC	56PF	5%	50V
C773	1-162-293-31	CERAMIC	820PF	10%	50V
C774	1-124-927-11	ELECT	4.7uF	20%	100V
C780	1-124-126-00	ELECT	47uF	20%	10V
C781	1-126-176-11	ELECT	220uF	20%	10V
C782	1-161-379-00	CERAMIC	0.01uF	20%	25V
C783	1-161-379-00	CERAMIC	0.01uF	20%	25V
C787	1-126-176-11	ELECT	220uF	20%	10V
C788	1-136-165-00	FILM	0.1uF	5%	50V
C790	1-124-902-00	ELECT	0.47uF	20%	50V
C791	1-162-294-31	CERAMIC	0.001uF	10%	50V
C792	1-162-219-31	CERAMIC	68PF	5%	50V
C793	1-162-219-31	CERAMIC	68PF	5%	50V
C794	1-162-219-31	CERAMIC	68PF	5%	50V
C795	1-162-294-31	CERAMIC	0.001uF	10%	50V
C796	1-164-159-11	CERAMIC	0.1uF		50V
		< CONNECTOR >			
* CNP701	1-691-579-11	PIN, CONNECTOR (PC BOARD) 8P			
* CNP702	1-691-579-21	PIN, CONNECTOR (PC BOARD) 8P			
* CNP703	1-691-577-11	PIN, CONNECTOR (PC BOARD) 6P			
* CNP704	1-695-105-11	PIN, CONNECTOR (PC BOARD) 3P			
* CNP705	1-695-107-11	PIN, CONNECTOR (PC BOARD) 5P			
CNP706	1-568-852-11	PIN, CONNECTOR (PC BOARD) 9P			
		< DIODE >			
D701	8-719-911-19	DIODE 1SS119			
D702	8-719-911-19	DIODE 1SS119			
		< IC >			
IC701	8-752-068-52	IC CXA1782BQ			
IC702	8-752-372-94	IC CXD2507AQ			
IC703	8-759-518-59	IC BA6296FP			
IC704	8-759-198-93	IC SM5874AM1			
IC705	8-759-100-96	IC uPC4558G2			
		< COIL >			
L702	1-414-140-31	INDUCTOR	0.68uH		
L703	1-414-142-11	INDUCTOR	1uH		
L706	1-414-146-31	INDUCTOR	2.2uH		
L713	1-414-142-11	INDUCTOR	1uH		
L714	1-414-142-11	INDUCTOR	1uH		
L715	1-414-142-11	INDUCTOR	1uH		
L716	1-414-140-31	INDUCTOR	0.68uH		
L717	1-414-140-31	INDUCTOR	0.68uH		
L718	1-414-140-31	INDUCTOR	0.68uH		
L719	1-414-140-31	INDUCTOR	0.68uH		
L720	1-414-140-31	INDUCTOR	0.68uH		
L721	1-414-140-31	INDUCTOR	0.68uH		
L723	1-412-478-31	INDUCTOR	0.15uH		
L741	1-414-142-11	INDUCTOR	1uH		
L742	1-414-142-11	INDUCTOR	1uH		
L760	1-414-142-11	INDUCTOR	1uH		
L770	1-414-142-11	INDUCTOR	1uH		
		< TRANSISTOR >			
Q701	8-729-801-84	TRANSISTOR 2SB1013-4			
Q702	8-729-900-85	TRANSISTOR DTC144WS			
Q703	8-729-900-74	TRANSISTOR DTC143TS			
Q705	8-729-902-80	TRANSISTOR DTA114YS			
Q760	8-729-900-74	TRANSISTOR DTC143TS			
Q770	8-729-900-74	TRANSISTOR DTC143TS			
		< RESISTOR >			
R700	1-249-429-11	CARBON	10K	5%	1/4W
R701	1-249-441-11	CARBON	100K	5%	1/4W
R702	1-247-896-11	CARBON	510K	5%	1/4W
R703	1-249-441-11	CARBON	100K	5%	1/4W
R704	1-249-441-11	CARBON	100K	5%	1/4W
R705	1-249-437-11	CARBON	47K	5%	1/4W
R706	1-247-883-00	CARBON	150K	5%	1/4W
R707	1-249-432-11	CARBON	18K	5%	1/4W
R708	1-247-883-00	CARBON	150K	5%	1/4W
R709	1-249-432-11	CARBON	18K	5%	1/4W
R710	1-249-397-11	CARBON	22	5%	1/4W
R711	1-249-417-11	CARBON	1K	5%	1/4W
R712	1-247-886-11	CARBON	200K	5%	1/4W
R713	1-247-883-00	CARBON	150K	5%	1/4W
R714	1-247-883-00	CARBON	150K	5%	1/4W
R715	1-247-806-11	CARBON	91	5%	1/4W
R716	1-249-430-11	CARBON	12K	5%	1/4W

CD MAIN MOTOR CONTROL

Ref. No.	Part No.	Description			Remark
R717	1-249-425-11	CARBON	4.7K	5%	1/4W
R718	1-247-899-11	CARBON	680K	5%	1/4W
R719	1-247-839-11	CARBON	2.2K	5%	1/4W
R720	1-249-441-11	CARBON	100K	5%	1/4W
R721	1-247-895-00	CARBON	470K	5%	1/4W
R730	1-249-435-11	CARBON	33K	5%	1/4W
R731	1-249-433-11	CARBON	22K	5%	1/4W
R732	1-249-429-11	CARBON	10K	5%	1/4W
R733	1-249-435-11	CARBON	33K	5%	1/4W
R734	1-249-437-11	CARBON	47K	5%	1/4W
R735	1-249-422-11	CARBON	2.7K	5%	1/4W
R740	1-249-423-11	CARBON	3.3K	5%	1/4W
R741	1-249-417-11	CARBON	1K	5%	1/4W
R742	1-249-423-11	CARBON	3.3K	5%	1/4W
R743	1-247-903-00	CARBON	1M	5%	1/4W
R744	1-247-887-00	CARBON	220K	5%	1/4W
R745	1-247-856-00	CARBON	11K	5%	1/4W
R746	1-249-437-11	CARBON	47K	5%	1/4W
R747	1-249-417-11	CARBON	1K	5%	1/4W
R748	1-249-429-11	CARBON	10K	5%	1/4W
R749	1-249-429-11	CARBON	10K	5%	1/4W
R751	1-249-429-11	CARBON	10K	5%	1/4W
R752	1-249-429-11	CARBON	10K	5%	1/4W
R753	1-249-429-11	CARBON	10K	5%	1/4W
R754	1-249-429-11	CARBON	10K	5%	1/4W
R760	1-249-429-11	CARBON	10K	5%	1/4W
R761	1-249-429-11	CARBON	10K	5%	1/4W
R762	1-247-870-11	CARBON	43K	5%	1/4W
R763	1-247-870-11	CARBON	43K	5%	1/4W
R764	1-249-434-11	CARBON	27K	5%	1/4W
R765	1-249-434-11	CARBON	27K	5%	1/4W
R766	1-249-417-11	CARBON	1K	5%	1/4W
R770	1-249-429-11	CARBON	10K	5%	1/4W
R771	1-249-429-11	CARBON	10K	5%	1/4W
R772	1-247-870-11	CARBON	43K	5%	1/4W
R773	1-247-870-11	CARBON	43K	5%	1/4W
R774	1-249-434-11	CARBON	27K	5%	1/4W
R775	1-249-434-11	CARBON	27K	5%	1/4W
R776	1-249-417-11	CARBON	1K	5%	1/4W
R780	1-247-807-11	CARBON	100	5%	1/4W
R781	1-247-856-00	CARBON	11K	5%	1/4W
R782	1-249-431-11	CARBON	15K	5%	1/4W
R790	1-249-433-11	CARBON	22K	5%	1/4W
R792	1-249-429-11	CARBON	10K	5%	1/4W

< VARIABLE RESISTOR >

RV701	1-237-288-11	RES, ADJ, CARBON 47K (FOCUS BIAS)
RV702	1-230-497-11	RES, ADJ, CARBON 22K (FOCUS GAIN)

Ref. No.	Part No.	Description	Remark
		< VIBRATOR >	
X701	1-579-345-11	VIBRATOR, CERAMIC(16.9344MHz)	
**********			
*	1-652-212-11	MOTOR BOARD	
		**********	
		< SWITCH >	
S701	1-571-936-11	SWITCH, LEAF(LIMIT)	
**********			
*	A-3269-204-A	CONTROL BOARD, COMPLETE	(US, Canadian, AUS, E)
		**********	
*	A-3269-244-A	CONTROL BOARD, COMPLETE (UK)	
		**********	
*	3-912-371-01	HOLDER (LCD)	
		< CAPACITOR >	

C801	1-162-282-31	CERAMIC	100PF	10%	50V
C803	1-162-282-31	CERAMIC	100PF	10%	50V
C804	1-162-282-31	CERAMIC	100PF	10%	50V
C805	1-162-282-31	CERAMIC	100PF	10%	50V
C806	1-162-282-31	CERAMIC	100PF	10%	50V
C807	1-162-282-31	CERAMIC	100PF	10%	50V
C808	1-162-282-31	CERAMIC	100PF	10%	50V
C810	1-162-282-31	CERAMIC	100PF	10%	50V
C811	1-162-282-31	CERAMIC	100PF	10%	50V
C812	1-162-282-31	CERAMIC	100PF	10%	50V
C813	1-162-282-31	CERAMIC	100PF	10%	50V
C814	1-124-907-11	ELECT	10uF	20%	50V
C815	1-161-379-00	CERAMIC	0.01uF	20%	25V
C816	1-102-962-00	CERAMIC	30PF	5%	50V
C817	1-102-962-00	CERAMIC	30PF	5%	50V
C818	1-162-197-31	CERAMIC	6.8PF	10%	50V
C819	1-162-197-31	CERAMIC	6.8PF	10%	50V
C820	1-124-907-11	ELECT	10uF	20%	50V
C821	1-161-379-00	CERAMIC	0.01uF	20%	25V
C822	1-161-379-00	CERAMIC	0.01uF	20%	25V
C823	1-124-907-11	ELECT	10uF	20%	50V
C824	1-124-907-11	ELECT	10uF	20%	50V
C826	1-161-379-00	CERAMIC	0.01uF	20%	25V
C827	1-161-379-00	CERAMIC	0.01uF	20%	25V
C828	1-161-379-00	CERAMIC	0.01uF	20%	25V
C829	1-161-379-00	CERAMIC	0.01uF	20%	25V
C830	1-161-379-00	CERAMIC	0.01uF	20%	25V
C831	1-161-379-00	CERAMIC	0.01uF	20%	25V
C832	1-161-379-00	CERAMIC	0.01uF	20%	25V
C833	1-161-379-00	CERAMIC	0.01uF	20%	25V

Ref. No.	Part No.	Description			Remark
C834	1-161-379-00	CERAMIC	0.01uF	20%	25V
C835	1-162-282-31	CERAMIC	100PF	10%	50V
C836	1-161-379-00	CERAMIC	0.01uF	20%	25V
C837	1-161-379-00	CERAMIC	0.01uF	20%	25V
		< CONNECTOR >			
CNP801	1-568-828-11	PIN, CONNECTOR (PC BOARD) 9P			
* CNP803	1-695-374-31	PIN, CONNECTOR (PC BOARD) 13P			
		< DIODE >			
D801	8-719-048-46	LED SLZ-190B-10-T1(OPR/BATT)			
D802	8-719-048-47	LED SLZ-190B-06-T1(POWER STANDBY)(UK)			
		< IC >			
IC801	8-759-261-30	IC MSM65352B			
IC803	8-759-179-74	IC M62354P			
IC804	8-759-510-54	IC PST572D			
		< CABLE HOLDER >			
* KH801	1-573-287-11	HOLDER, CABLE 2P			
* KH803	1-565-384-11	HOLDER, CABLE 3P			
		< COIL >			
L801	1-410-316-11	INDUCTOR	1uH		
L802	1-410-316-11	INDUCTOR	1uH		
L803	1-410-509-11	INDUCTOR	10uH		
		< LIQUID CRYSTAL DISPLAY >			
LCD801	1-810-499-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< TRANSISTOR >			
Q801	8-729-206-20	TRANSISTOR RN1202			
		< RESISTOR >			
R801	1-249-417-11	CARBON	1K	5%	1/4W
R802	1-249-417-11	CARBON	1K	5%	1/4W
R803	1-249-417-11	CARBON	1K	5%	1/4W
R804	1-249-417-11	CARBON	1K	5%	1/4W
R805	1-249-417-11	CARBON	1K	5%	1/4W
R806	1-249-417-11	CARBON	1K	5%	1/4W
R807	1-249-417-11	CARBON	1K	5%	1/4W
R808	1-249-417-11	CARBON	1K	5%	1/4W
R809	1-249-417-11	CARBON	1K	5%	1/4W
R810	1-249-417-11	CARBON	1K	5%	1/4W
R811	1-249-417-11	CARBON	1K	5%	1/4W
R812	1-249-417-11	CARBON	1K	5%	1/4W
R813	1-249-417-11	CARBON	1K	5%	1/4W
R814	1-249-419-11	CARBON	1.5K	5%	1/4W
R815	1-247-883-00	CARBON	150K	5%	1/4W
R816	1-247-883-00	CARBON	150K	5%	1/4W
R817	1-247-883-00	CARBON	150K	5%	1/4W
R818	1-247-889-00	CARBON	270K	5%	1/4W
R819	1-249-417-11	CARBON	1K	5%	1/4W
R828	1-249-425-11	CARBON	4.7K	5%	1/4W
R829	1-249-425-11	CARBON	4.7K	5%	1/4W
R830	1-249-425-11	CARBON	4.7K	5%	1/4W
R831	1-249-429-11	CARBON	10K	5%	1/4W
R833	1-249-418-11	CARBON	1.2K	5%	1/4W
R834	1-249-418-11	CARBON	1.2K	5%	1/4W
R835	1-249-418-11	CARBON	1.2K	5%	1/4W
R838	1-249-421-11	CARBON	2.2K	5%	1/4W
R839	1-249-421-11	CARBON	2.2K	5%	1/4W
R840	1-249-421-11	CARBON	2.2K	5%	1/4W
R843	1-249-424-11	CARBON	3.9K	5%	1/4W
R845	1-249-424-11	CARBON	3.9K	5%	1/4W
R846	1-249-425-11	CARBON	4.7K	5%	1/4W
R847	1-249-418-11	CARBON	1.2K	5%	1/4W
R848	1-249-421-11	CARBON	2.2K	5%	1/4W
R849	1-249-424-11	CARBON	3.9K	5%	1/4W
R850	1-249-429-11	CARBON	10K	5%	1/4W
R851	1-249-429-11	CARBON	10K	5%	1/4W
R860	1-249-413-11	CARBON	470	5%	1/4W
R861	1-249-413-11	CARBON	470	5%	1/4W (UK)
R862	1-249-430-11	CARBON	12K	5%	1/4W
R863	1-249-437-11	CARBON	47K	5%	1/4W
R864	1-249-437-11	CARBON	47K	5%	1/4W
R865	1-249-437-11	CARBON	47K	5%	1/4W
R867	1-249-417-11	CARBON	1K	5%	1/4W
R868	1-249-437-11	CARBON	47K	5%	1/4W
R869	1-249-429-11	CARBON	10K	5%	1/4W
		< SWITCH >			
S801	1-572-198-11	SWITCH, KEYBOARD (CD)			
S802	1-572-198-11	SWITCH, KEYBOARD (STOP □)			
S803	1-572-198-11	SWITCH, KEYBOARD (RADIO)			
S804	1-572-198-11	SWITCH, KEYBOARD (PLAY/PAUSE ▷II)			
S805	1-572-198-11	SWITCH, KEYBOARD (TAPE)			
S806	1-572-198-11	SWITCH, KEYBOARD (AMS/SEARCH ▶▶I)			
S807	1-572-198-11	SWITCH, KEYBOARD (PLAY MODE)			
S809	1-572-198-11	SWITCH, KEYBOARD (AMS/SEARCH I◀◀)			
S810	1-572-198-11	SWITCH, KEYBOARD (DISPLY/ENTER)			
S813	1-572-198-11	SWITCH, KEYBOARD (POWER)			
		< VIBRATOR >			
X801	1-579-901-11	OSCILLATOR, CERAMIC (4.19MHz)			
X802	1-567-098-41	VIBRATOR, CRYSTAL (32.768KHz)			

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MAIN

Ref.No.	Part No.	Description	Remark
*	A-3269-202-A	MAIN BOARD, COMPLETE(US, Canadian, E)	
		**********	
*	A-3269-242-A	MAIN BOARD, COMPLETE(UK)	
		**********	
*	A-3269-561-A	MAIN BOARD, COMPLETE(AUS)	
		**********	
	3-322-317-01	LEVER, REC	
	3-912-338-01	GEAR (VC)	
	3-912-357-01	KNOB (BAND)	
*	3-912-364-01	HOLDER (REC)	
	7-621-770-87	SCREW +P 2.6X5	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
		< CAPACITOR >	
C1	1-162-286-31	CERAMIC 220PF 10% 50V	
C3	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C4	1-124-907-11	ELECT 10uF 20% 50V	
C5	1-162-282-31	CERAMIC 100PF 10% 50V	
C7	1-162-205-31	CERAMIC 18PF 5% 50V	(US, Canadian, AUS, E)
C7	1-162-207-31	CERAMIC 22PF 5% 50V	(UK)
C8	1-102-960-00	CERAMIC 24PF 5% 50V	(US, Canadian, AUS, E)
C8	1-102-962-00	CERAMIC 30PF 5% 50V	(UK)
C9	1-162-198-31	CERAMIC 8.2PF 10% 50V	(US, Canadian, AUS, E)
C9	1-162-199-31	CERAMIC 10PF 10% 50V	(UK)
C10	1-162-193-31	CERAMIC 3.3PF 10% 50V	
C11	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C12	1-162-282-31	CERAMIC 100PF 10% 50V	
C15	1-124-927-11	ELECT 4.7uF 20% 100V	
C16	1-124-903-11	ELECT 1uF 20% 50V	
C17	1-124-126-00	ELECT 47uF 20% 10V	
C18	1-124-126-00	ELECT 47uF 20% 10V	
C19	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C20	1-124-903-11	ELECT 1uF 20% 50V	
C21	1-124-925-11	ELECT 2.2uF 20% 100V	
C22	1-124-443-00	ELECT 100uF 20% 10V	
C23	1-124-902-00	ELECT 0.47uF 20% 50V	
C24	1-124-927-11	ELECT 4.7uF 20% 100V	
C25	1-124-463-00	ELECT 0.1uF 20% 50V	
C27	1-161-053-00	CERAMIC 0.015uF 10% 50V	(US, Canadian, AUS, E)
C27	1-162-840-11	CERAMIC 0.012uF 10% 16V	(UK)
C28	1-161-053-00	CERAMIC 0.015uF 10% 50V	(US, Canadian, AUS, E)
C28	1-162-840-11	CERAMIC 0.012uF 10% 16V	(UK)
C29	1-124-902-00	ELECT 0.47uF 20% 50V	
C30	1-124-902-00	ELECT 0.47uF 20% 50V	

Ref.No.	Part No.	Description	Remark
C47	1-162-282-31	CERAMIC 100PF 10% 50V	
C48	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C49	1-161-494-00	CERAMIC 0.022uF 25V	(UK)
C99	1-162-191-31	CERAMIC 2.2PF 10% 50V	
C101	1-161-041-00	CERAMIC 0.0015uF 10% 50V	
C102	1-161-020-11	CERAMIC 0.039uF 10% 25V	
C103	1-124-126-00	ELECT 47uF 20% 10V	
C104	1-161-374-11	CERAMIC 0.0015uF 20% 50V	
C105	1-124-902-00	ELECT 0.47uF 20% 50V	
C106	1-162-282-31	CERAMIC 100PF 10% 50V	
C107	1-124-907-11	ELECT 10uF 20% 50V	
C108	1-162-290-31	CERAMIC 470PF 10% 50V	(UK, AUS)
C110	1-162-215-31	CERAMIC 47PF 5% 50V	
C120	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C121	1-124-927-11	ELECT 4.7uF 20% 100V	
C122	1-124-927-11	ELECT 4.7uF 20% 100V	
C123	1-162-301-11	CERAMIC 0.0015uF 20% 16V	
C124	1-124-443-00	ELECT 100uF 20% 10V	
C125	1-124-443-00	ELECT 100uF 20% 10V	
C126	1-124-473-11	ELECT 1000uF 20% 10V	
C127	1-136-169-00	FILM 0.22uF 5% 50V	
C151	1-124-927-11	ELECT 4.7uF 20% 100V	
C152	1-162-848-11	CERAMIC 0.056uF 10% 16V	
C153	1-162-848-11	CERAMIC 0.056uF 10% 16V	
C154	1-124-464-11	ELECT 0.22uF 20% 50V	
C155	1-162-282-31	CERAMIC 100PF 10% 50V	
C157	1-161-039-00	CERAMIC 0.001uF 10% 50V	
C158	1-124-907-11	ELECT 10uF 20% 50V	
C201	1-161-041-00	CERAMIC 0.0015uF 10% 50V	
C202	1-161-020-11	CERAMIC 0.039uF 10% 25V	
C203	1-124-126-00	ELECT 47uF 20% 10V	
C204	1-161-374-11	CERAMIC 0.0015uF 20% 50V	
C205	1-124-902-00	ELECT 0.47uF 20% 50V	
C206	1-162-282-31	CERAMIC 100PF 10% 50V	
C207	1-124-907-11	ELECT 10uF 20% 50V	
C208	1-162-290-31	CERAMIC 470PF 10% 50V	(UK, AUS)
C210	1-162-215-31	CERAMIC 47PF 5% 50V	
C220	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C221	1-124-927-11	ELECT 4.7uF 20% 100V	
C222	1-124-927-11	ELECT 4.7uF 20% 100V	
C223	1-162-301-11	CERAMIC 0.0015 20% 16V	
C224	1-124-443-00	ELECT 100uF 20% 10V	
C225	1-124-443-00	ELECT 100uF 20% 10V	
C226	1-124-473-11	ELECT 1000uF 20% 10V	
C227	1-136-169-00	FILM 0.22uF 5% 50V	
C251	1-124-927-11	ELECT 4.7uF 20% 100V	
C252	1-162-848-11	CERAMIC 0.056uF 10% 16V	

Ref.No.	Part No.	Description			Remark
C253	1-162-848-11	CERAMIC	0.056uF	10%	16V
C254	1-124-464-11	ELECT	0.22uF	20%	50V
C255	1-162-282-31	CERAMIC	100PF	10%	50V
C257	1-161-039-00	CERAMIC	0.001uF	10%	50V
C258	1-124-907-11	ELECT	10uF	20%	50V
C301	1-124-902-00	ELECT	0.47uF	20%	50V
C302	1-162-306-11	CERAMIC	0.01uF	20%	16V
C303	1-126-176-11	ELECT	220uF	20%	10V
C304	1-124-126-00	ELECT	47uF	20%	10V
C305	1-124-907-11	ELECT	10uF	20%	50V
C306	1-124-907-11	ELECT	10uF	20%	50V
C307	1-124-907-11	ELECT	10uF	20%	50V
C308	1-124-907-11	ELECT	10uF	20%	50V
C309	1-126-176-11	ELECT	220uF	20%	10V
C310	1-162-302-11	CERAMIC	0.0015uF	5%	16V (UK)
C312	1-130-481-00	MYLAR	0.0068uF	5%	50V
C313	1-124-126-00	ELECT	47uF	20%	10V
C314	1-162-294-31	CERAMIC	0.001uF	10%	50V
C316	1-162-306-11	CERAMIC	0.01uF	20%	16V (UK)
C317	1-162-282-31	CERAMIC	100PF	10%	50V
C318	1-162-282-31	CERAMIC	100PF	10%	50V
C319	1-162-282-31	CERAMIC	100PF	10%	50V
C320	1-162-282-31	CERAMIC	100PF	10%	50V
C321	1-162-282-31	CERAMIC	100PF	10%	50V
C332	1-124-927-11	ELECT	4.7uF	20%	100V
C333	1-124-925-11	ELECT	2.2uF	20%	100V
C334	1-124-907-11	ELECT	10uF	20%	50V
C335	1-126-101-11	ELECT	100uF	20%	16V
C336	1-124-126-00	ELECT	47uF	20%	10V
C337	1-124-120-11	ELECT	220uF	20%	25V
C338	1-162-282-31	CERAMIC	100PF	10%	50V
C339	1-126-937-11	ELECT	4700uF	20%	16V
C340	1-162-282-31	CERAMIC	100PF	10%	50V (US, Canadian, E)
C341	1-162-282-31	CERAMIC	100PF	10%	50V
C342	1-124-120-11	ELECT	220uF	20%	25V
C343	1-126-101-11	ELECT	100uF	20%	16V
C344	1-162-306-11	CERAMIC	0.01uF	20%	16V
C345	1-162-306-11	CERAMIC	0.01uF	20%	16V
C346	1-162-306-11	CERAMIC	0.01uF	20%	16V
C347	1-162-306-11	CERAMIC	0.01uF	20%	16V
C349	1-162-306-11	CERAMIC	0.01uF	20%	16V
C350	1-162-282-31	CERAMIC	100PF	10%	50V
C351	1-162-282-31	CERAMIC	100PF	10%	50V
C352	1-162-282-31	CERAMIC	100PF	10%	50V
C353	1-162-282-31	CERAMIC	100PF	10%	50V
C391	1-124-120-11	ELECT	220uF	20%	25V
C397	1-126-101-11	ELECT	100uF	20%	16V
C398	1-124-927-11	ELECT	4.7uF	20%	100V
C399	1-124-902-00	ELECT	0.47uF	20%	50V
C400	1-162-282-31	CERAMIC	100pF	10%	50V (US, Canadian, E)

< FILTER >

CF1	1-577-327-81	FILTER, CERAMIC
CF2	1-527-870-00	FILTER
CF3	1-577-327-81	FILTER, CERAMIC
CF4	1-577-327-81	FILTER, CERAMIC

< CONNECTOR >

CNP301	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P
CNP304	1-695-336-11	PIN, CONNECTOR (PC BOARD) 13P

< VARIABLE CAPACITOR >

CT1-4, CV1-4	1-151-695-11	CAP, VAR (UK)
CT1-4, CV1-4	1-151-696-11	CAP, VAR (US, Canadian, AUS, E)

< DIODE >

D1	8-719-911-19	DIODE 1SS119
D2	8-719-911-19	DIODE 1SS119
D4	8-719-938-69	LED GL3PR8 (FM STEREO)
D301	8-719-109-89	DIODE RD5.6ESB2
D302	8-719-109-97	DIODE RD6.8ES-B2
D303	8-719-901-33	DIODE 1SS133
D305	8-719-901-33	DIODE 1SS133
D306	8-719-901-33	DIODE 1SS133
D311	8-719-901-33	DIODE 1SS133
D341	8-719-901-33	DIODE 1SS133

< FILTER >

FL1	1-236-022-11	FILTER, BAND PASS

< IC >

IC1	8-752-050-20	IC CXA1238S
IC301	8-759-264-71	IC TA2068N
IC304	8-752-067-34	IC CXA1352AS
IC305	8-759-820-22	IC LA4597
IC307	8-759-095-60	IC S-81250PG
IC313	8-759-634-51	IC NJM4558D

< JACK >

J301	1-766-190-11	JACK (MIX MIC)
J302	1-566-891-11	JACK (PHONES)
J303	1-537-114-11	TERMINAL BOARD (SPEAKER OUTPUT)

MAIN

Ref. No.	Part No.	Description	Remark
		< CABLE HOLDER >	
* KH302	1-573-287-11	HOLDER, CABLE 2P	
* KH303	1-565-384-11	HOLDER, CABLE 3P	
* KH304	1-565-386-11	HOLDER, CABLE 5P	
* KH305	1-565-384-11	HOLDER, CABLE 3P	
		< COIL >	
L1	1-406-998-11	COIL, AIR-CORE (US, Canadian, AUS, E)	
L1	1-406-999-11	COIL, AIR-CORE (UK)	
L2	1-428-775-11	COIL, AIR-CORE	
L3	1-402-158-11	ANTENNA, FERRITE-ROD (MW) (UK)	
L3	1-501-646-11	ANTENNA, FERRITE-ROD (MW) (US, Canadian, AUS, E)	
L4	1-406-040-00	COIL (OSC)	
L101	1-414-142-11	INDUCTOR 1uH	
L102	1-414-142-11	INDUCTOR 1uH	
L103	1-410-397-21	FERRITE BEAD INDUCTOR (UK, AUS)	
L103	1-414-142-11	INDUCTOR 1uH (US, Canadian, E)	
L201	1-414-142-11	INDUCTOR 1uH	
L202	1-414-142-11	INDUCTOR 1uH	
L203	1-410-397-21	FERRITE BEAD INDUCTOR (UK, AUS)	
L203	1-414-142-11	INDUCTOR 1uH (US, Canadian, E)	
L303	1-414-142-11	INDUCTOR 1uH (US, Canadian, E)	
L303	1-414-146-31	INDUCTOR 2.2uH (UK, AUS)	
L305	1-414-183-41	INDUCTOR 10uH	
L306	1-414-142-11	INDUCTOR 1uH (US, Canadian, E)	
L306	1-414-183-41	INDUCTOR 10uH (UK, AUS)	
L308	1-414-324-11	INDUCTOR 4.7nH	
L309	1-414-324-11	INDUCTOR 4.7nH	
L310	1-410-397-21	FERRITE BEAD INDUCTOR (UK, AUS)	
L311	1-410-397-21	FERRITE BEAD INDUCTOR (UK, AUS)	
L312	1-410-397-21	FERRITE BEAD INDUCTOR (UK, AUS)	
L313	1-410-397-21	FERRITE BEAD INDUCTOR (UK, AUS)	
L314	1-410-397-21	FERRITE BEAD INDUCTOR (UK, AUS)	
L315	1-410-397-21	FERRITE BEAD INDUCTOR (UK, AUS)	
L316	1-410-397-21	FERRITE BEAD INDUCTOR (UK, AUS)	
L317	1-414-146-31	FERRITE BEAD INDUCTOR 2.2uH (UK, AUS)	
		< TRANSISTOR >	
Q1	8-729-206-25	TRANSISTOR RN1207 (UK)	
Q102	8-729-206-28	TRANSISTOR RN1202	
Q111	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q202	8-729-206-28	TRANSISTOR RN1202	
Q211	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q301	8-729-206-20	TRANSISTOR RN1202	
Q302	8-729-206-31	TRANSISTOR RN2202	
Q303	8-729-801-84	TRANSISTOR 2SB1013-4	
Q304	8-729-206-20	TRANSISTOR RN1202	
Q305	8-729-206-20	TRANSISTOR RN1202	
Q306	8-729-206-31	TRANSISTOR RN2202	
Q307	8-729-019-01	TRANSISTOR 2SD2394-EF	
Q308	8-729-019-01	TRANSISTOR 2SD2394-EF	
Q309	8-729-206-20	TRANSISTOR RN1202	
Q310	8-729-801-84	TRANSISTOR 2SB1013-4	
Q311	8-729-206-20	TRANSISTOR RN1202	
Q312	8-729-206-31	TRANSISTOR RN2202	
Q313	8-729-281-53	TRANSISTOR 2SC1815-GR	
Q314	8-729-206-20	TRANSISTOR RN1202	
		< RESISTOR >	
R3	1-249-421-11	CARBON 2.2K 5% 1/4W	
R5	1-249-426-11	CARBON 5.6K 5% 1/4W	
R6	1-249-441-11	CARBON 100K 5% 1/4W	
R7	1-249-415-11	CARBON 680 5% 1/4W	
R9	1-249-441-11	CARBON 100K 5% 1/4W	
R10	1-249-404-00	CARBON 82 5% 1/4W	
R11	1-249-427-11	CARBON 6.8K 5% 1/4W	
R12	1-249-427-11	CARBON 6.8K 5% 1/4W	
R13	1-247-807-11	CARBON 100 5% 1/4W	
R14	1-249-429-11	CARBON 10K 5% 1/4W	
R15	1-247-887-00	CARBON 220K 5% 1/4W	
R16	1-247-887-00	CARBON 220K 5% 1/4W	
R17	1-249-421-11	CARBON 2.2K 5% 1/4W	
R21	1-249-410-11	CARBON 270 5% 1/4W	
R24	1-249-423-11	CARBON 3.3K 5% 1/4W	
R25	1-249-415-11	CARBON 680 5% 1/4W	
R28	1-247-807-11	CARBON 100 5% 1/4W	
R29	1-247-807-11	CARBON 100 5% 1/4W	
R30	1-249-429-11	CARBON 10K 5% 1/4W (UK)	
R101	1-247-860-11	CARBON 16K 5% 1/4W	
R102	1-249-403-11	CARBON 68 5% 1/4W	
R103	1-249-440-11	CARBON 82K 5% 1/4W	
R104	1-249-423-11	CARBON 3.3K 5% 1/4W	
R105	1-249-432-11	CARBON 18K 5% 1/4W	
R106	1-249-423-11	CARBON 3.3K 5% 1/4W	
R107	1-249-420-11	CARBON 1.8K 5% 1/4W	
R110	1-249-421-11	CARBON 2.2K 5% 1/4W	
R124	1-247-807-11	CARBON 100 5% 1/4W	
R130	1-249-431-11	CARBON 15K 5% 1/4W	
R131	1-249-426-11	CARBON 5.6K 5% 1/4W	
R132	1-249-404-00	CARBON 82 5% 1/4W	
R153	1-249-419-11	CARBON 1.5K 5% 1/4W	
R154	1-249-435-11	CARBON 33K 5% 1/4W	
R155	1-247-895-00	CARBON 470K 5% 1/4W	
R157	1-249-417-11	CARBON 1K 5% 1/4W	
R158	1-249-417-11	CARBON 1K 5% 1/4W	
R201	1-247-860-11	CARBON 16K 5% 1/4W	
R202	1-249-403-11	CARBON 68 5% 1/4W	

Ref. No.	Part No.	Description				Remark
R203	1-249-440-11	CARBON	82K	5%	1/4W	
R204	1-249-423-11	CARBON	3.3K	5%	1/4W	
R205	1-249-432-11	CARBON	18K	5%	1/4W	
R206	1-249-423-11	CARBON	3.3K	5%	1/4W	
R207	1-249-420-11	CARBON	1.8K	5%	1/4W	
R210	1-249-421-11	CARBON	2.2K	5%	1/4W	
R224	1-247-807-11	CARBON	100	5%	1/4W	
R230	1-249-431-11	CARBON	15K	5%	1/4W	
R231	1-249-426-11	CARBON	5.6K	5%	1/4W	
R232	1-249-404-00	CARBON	82	5%	1/4W	
R253	1-249-419-11	CARBON	1.5K	5%	1/4W	
R254	1-249-435-11	CARBON	33K	5%	1/4W	
R255	1-247-895-00	CARBON	470K	5%	1/4W	
R257	1-249-417-11	CARBON	1K	5%	1/4W	
R258	1-249-417-11	CARBON	1K	5%	1/4W	
R301	1-249-417-11	CARBON	1K	5%	1/4W	
R302	1-249-429-11	CARBON	10K	5%	1/4W	
R303	1-247-903-00	CARBON	1M	5%	1/4W	
R305	1-249-435-11	CARBON	33K	5%	1/4W	
R306	1-249-404-00	CARBON	82	5%	1/4W	
R307	1-249-393-11	CARBON	10	5%	1/4W	
R308	1-249-433-11	CARBON	22K	5%	1/4W	
R309	1-247-807-11	CARBON	100	5%	1/4W	
⚠R310	1-219-149-11	FUSIBLE	1	5%	1/4W	F
R311	1-249-429-11	CARBON	10K	5%	1/4W	
R312	1-249-429-11	CARBON	10K	5%	1/4W	
R313	1-249-417-11	CARBON	1K	5%	1/4W	
R314	1-249-429-11	CARBON	10K	5%	1/4W	(UK)
R315	1-249-429-11	CARBON	10K	5%	1/4W	(UK)
R336	1-247-884-11	CARBON	160K	5%	1/4W	
R337	1-249-401-11	CARBON	47	5%	1/4W	
R338	1-249-418-11	CARBON	1.2K	5%	1/4W	
R339	1-249-418-11	CARBON	1.2K	5%	1/4W	(UK)
R340	1-249-437-11	CARBON	47K	5%	1/4W	
⚠R341	1-219-149-11	FUSIBLE	1	5%	1/4W	F
R342	1-249-409-11	CARBON	220	5%	1/4W	
R343	1-249-437-11	CARBON	47K	5%	1/4W	
R344	1-249-425-11	CARBON	4.7K	5%	1/4W	
R345	1-249-437-11	CARBON	47K	5%	1/4W	
R346	1-249-417-11	CARBON	1K	5%	1/4W	
R348	1-247-811-31	CARBON	150	5%	1/4W	
R361	1-247-807-11	CARBON	100	5%	1/4W	
R362	1-249-429-11	CARBON	10K	5%	1/4W	
R364	1-249-429-11	CARBON	10K	5%	1/4W	
R365	1-247-903-00	CARBON	1M	5%	1/4W	
R366	1-249-441-11	CARBON	100K	5%	1/4W	
R367	1-249-413-11	CARBON	470	5%	1/4W	
R391	1-249-418-11	CARBON	1.2K	5%	1/4W	
R392	1-249-441-11	CARBON	100K	5%	1/4W	

Ref. No.	Part No.	Description			Remark
		< VARIABLE RESISTOR >			
RV1	1-238-601-11	RES, ADJ, CARBON 22K (VCO)			
RV301	1-223-644-11	RES, VAR, CARBON 50K (BALANCE)			
RV302	1-223-644-11	RES, VAR, CARBON 50K (100Hz)			
RV303	1-223-644-11	RES, VAR, CARBON 50K (1KHz)			
RV304	1-223-644-11	RES, VAR, CARBON 50K (10KHz)			
RV305	1-223-645-11	RES, VAR, CARBON 500K/500K (MEGA BASS)			
		< SWITCH >			
S1	1-692-252-11	SWITCH, LEVER SLIDE (BAND)			
S301	1-571-547-11	SWITCH, SLIDE (FM MODE/ISS) (UK)			
S302	1-692-961-11	SWITCH, SLIDE (REC/PB)			
		< TRANSFORMER >			
T1	1-404-355-41	TRANSFORMER, IF			
T301	1-433-268-00	TRANSFORMER, BIAS OSCILLATOR			
**********					
*	1-652-209-11	POWER BOARD			
		**********			
	1-533-233-11	HOLDER, FUSE			
*	3-376-847-01	CUSHION, SARANET			
		< CAPACITOR >			
C901	1-101-005-00	CERAMIC	22000PF		50V
C902	1-101-005-00	CERAMIC	22000PF		50V
C903	1-101-005-00	CERAMIC	22000PF		50V
C904	1-101-005-00	CERAMIC	22000PF		50V
C906	1-162-290-31	CERAMIC	470PF	10%	50V (UK, AUS)
C907	1-162-290-31	CERAMIC	470PF	10%	50V (UK, AUS)
C908	1-162-290-31	CERAMIC	470PF	10%	50V (UK, AUS)
C909	1-162-290-31	CERAMIC	470PF	10%	50V (UK, AUS)
		< CONNECTOR >			
* CNP901	1-691-574-11	PIN, CONNECTOR (PC BOARD) 3P			
* CNP902	1-691-573-11	PIN, CONNECTOR (PC BOARD) 2P			
		< DIODE >			
D901	8-719-046-47	DIODE 1N5401TM			
D902	8-719-046-47	DIODE 1N5401TM			
D903	8-719-046-47	DIODE 1N5401TM			
D904	8-719-046-47	DIODE 1N5401TM			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

POWER | TC LEAF | VOLUME

Ref. No.	Part No.	Description	Remark
		< FUSE >	
⚠F901	1-532-286-00	FUSE 2.5A 250V (UK, AUS)	
⚠F901	1-576-107-11	FUSE 3.15A 125V (US, Canadian, E)	
		< JACK >	
⚠J901	1-526-818-11	INLET, AC (AC IN) (E)	
⚠J901	1-526-838-11	INLET, AC 2P (AC IN) (UK, AUS)	
⚠J901	1-540-009-11	INLET, AC (AC IN) (US, Canadian)	
		< COIL >	
L901	1-410-397-21	FERRITE BEAD INDUCTOR (US, Canadian, E)	
L902	1-410-397-21	FERRITE BEAD INDUCTOR	
L903	1-410-397-21	FERRITE BEAD INDUCTOR (UK, AUS)	
L904	1-410-397-21	FERRITE BEAD INDUCTOR (UK, AUS)	
		< LINE FILTER >	
⚠LF901	1-424-150-11	TRANSFORMER, LINE FILTER	
		< TRANSFORMER >	
⚠T901	1-426-759-11	TRANSFORMER, POWER (US, Canadian, E)	
⚠T901	1-426-769-11	TRANSFORMER, POWER (UK, AUS)	
**********		**********	
*	1-652-206-11	TC LEAF BOARD	
		**********	
		< CONNECTOR >	
* CNP601	1-695-104-11	PIN, CONNECTOR (PC BOARD) 2P	
* CNP602	1-695-104-11	PIN, CONNECTOR (PC BOARD) 2P	
		< SWITCH >	
S601	1-696-515-11	SWITCH, LEAF (MOTOR)	
**********		**********	
*	1-652-211-11	VOLUME BOARD	
		**********	
		< CABLE HOLDER >	
* KH804	1-565-384-11	HOLDER, CABLE 3P	
		< SWITCH >	
S811	1-572-198-11	SWITCH, KEYBOARD (VOLUME -)	
S812	1-572-198-11	SWITCH, KEYBOARD (VOLUME +)	
**********		**********	

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
64	1-765-666-11	WIRE, PARALLEL (FFC) (13 CORE)	
65	1-765-665-11	WIRE, PARALLEL (FFC) (9 CORE)	
155	1-559-620-11	CORD (WITH CONNECTOR)	
⚠305	8-848-337-11	DEVICE, OPTICAL KSS-212B	
306	X-2625-770-1	CHASSIS ASSY (MB)(RP), MOTOR (INCLUDING M702)(SPINDLE)	
ANT901	1-501-383-21	ANTENNA, TELESCOPIC	
HE901	1-543-876-11	HEAD (ERASE)	
HRP901	1-543-628-11	HEAD, MAGNETIC(RECORD/PLAYBACK)	
M401	X-4919-956-1	MOTOR ASSY	
M701	X-2625-769-1	GEAR ASSY (MB)(RP), MOTOR (SLED)	
M702	INCLUDED IN 306		
S702	1-692-960-11	SWITCH, PUSH (1 KEY)	
SP101	1-504-269-21	SPEAKER (10CM)(L-CH)	
SP102	1-529-058-11	BUZZER(L-CH)	
SP201	1-504-269-21	SPEAKER (10CM)(R-CH)	
SP202	1-529-058-11	BUZZER (R-CH)	
**********		**********	
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-557-287-11	CORD, POWER(E)	
	1-690-952-21	CORD, POWER(US, Canadian)	
	1-696-819-11	CORD, POWER(AUS)	
	1-751-214-11	CORD, POWER(UK)	
	3-758-440-21	MANUAL, INSTRUCTION(ENGLISH) (US, Canadian, AUS, E)	
	3-758-440-31	MANUAL, INSTRUCTION(FRENCH)(Canadian)	
	3-758-440-51	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, SPANISH)(UK)	
	3-758-440-71	MANUAL, INSTRUCTION(SPANISH)(E)	
*	3-912-468-01	CUSHION (TOP)	
*	3-912-469-01	CUSHION (BOTTOM)	
*	3-912-483-01	INDIVIDUAL CARTON(US)	
*	3-912-484-01	INDIVIDUAL CARTON(Canadian, AUS)	
*	3-912-485-01	INDIVIDUAL CARTON(E)	
*	3-920-298-01	INDIVIDUAL CARTON(UK)	
**********		**********	

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Ref.No.	Part No.	Description	Remark
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#2	7-685-648-79	SCREW +BVTP 3X12 TYPE2 N-S	
#3	7-685-547-19	SCREW +BTP 3X10 TYPE2 N-S	
#4	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#5	7-685-649-79	SCREW +BVTP 3X14 TYPE2 N-S	
#6	7-685-133-19	SCREW +P 2.6X6 TYPE2	
#7	7-621-770-87	SCREW +P 2.6X5	
#8	7-685-646-19	SCREW +BVTP 3X8 TYPE2 N-S	
#9	7-682-548-09	SCREW +B 3X8	
#10	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
#11	7-621-775-20	SCREW +B 2.6X5	
#12	7-621-255-15	SCREW +P 2X3	

MEMO

Printing Method for Large Sized Documents Such As Circuit Diagrams

Printing the page that exceeds A4-size two pages (or letter size) is possible by specifying the print range. (Acrobat Reader Version 4.0 or later)

1. The enlarged print is made, if a smaller range than A4 size is specified and the A4 size is selected as a print paper.
2. Almost real sized print is made, if the range is specified, meeting the print paper size.
3. The reduced print is made, if a larger range than the print paper size is specified.

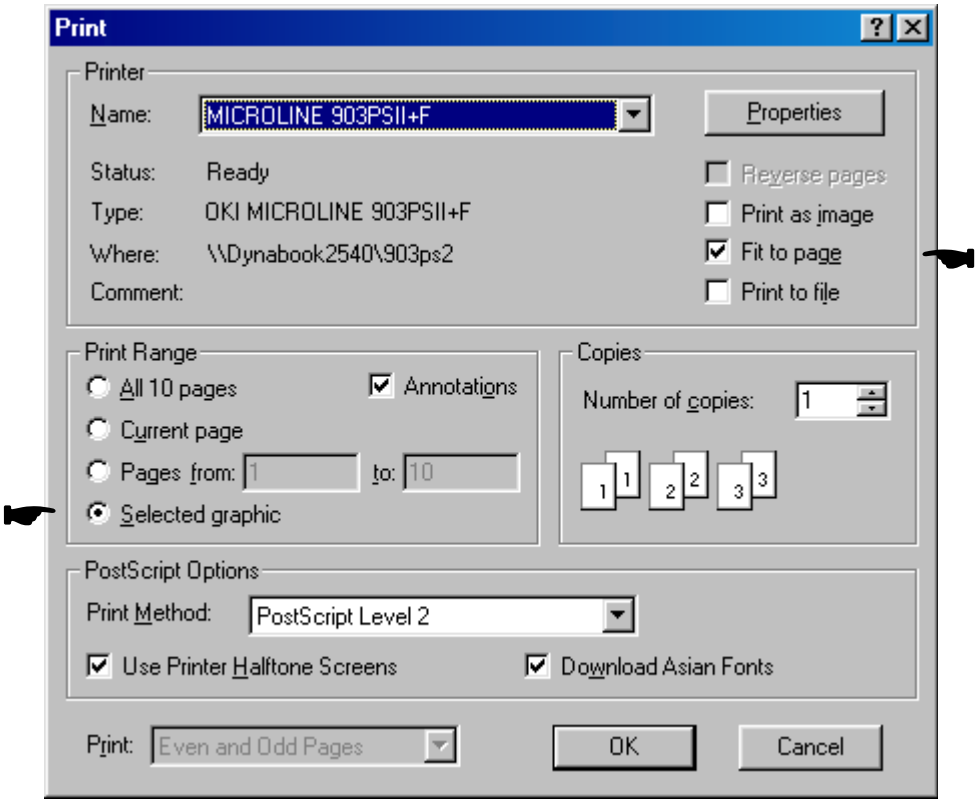
PRINTING BY SPECIFYING A RANGE

In printing out the drawings such as a schematic diagram and a printed wiring board larger than the printed paper size, they can be printed by specifying the range. (Acrobat Reader Version 4.0 or later)

1. Display the page to be printed.
2. From the File menu, select [Page Setup] and set the paper size.
3. From the Command bar, select [Graphic Select Tool].

   (Keep pressing , select)

4. Dragging the cursor, enclose the range on the page to be printed.
5. From the File menu, select [Print] and make sure that the [Selected Graphic] is already checked. Also, if [Fit to page] is checked, the selected range is enlarged or reduced (and rotated as necessary) meeting the paper size.



6. To cancel the printed range, click an arbitrary position on the screen.

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	1994.12	New
1.1	2002.03	Correction of exploded views (Ref. No. 213 deleted). Including correction-1 (Parts change of IC 702) (9-959-597-91). (SPM-02013)